ALPHABETICAL INDEX.

[Pages in heavy type contain important references.]

A.

Page.

Abacatuaja 37
Abadejo—Mycteroperca falcata 39
Abbott, A. N., sent fulgurites 83, 84
E. L., described fulgurites .85, 86, 87, 88, 89
sent fulgurites 83, 84
Abejarruco coccyzus sp 162
Abejero tyrannus sp 155
Abispero myiarchus sp 155
tyrannus sp 155
Abutarda 180
Acanthinula harpa 219
Acanthocybium petus 36, 574
solandri 36, 574
Acanthodoris pilosa 209, 210, 217
Acanthogaster 245
Acanthostracion polygonius 604
quadricorne 54
Acanthuridæ 594
of Havana 48
Acanthurus 48
brevis 48, 594
chirurgus 48, 594
cœruleus 48, 594
hepatus **48**, 594
phlebotomus 48, 594
tractus 48, 594
Acara 48, 592
fuscomaculata 48
Accipiter velox 168
Acédia-Aphoristia plaginsa 53
Acentrogobius 487
Acephala from Labrador 207
Aceste bellidifera 290
Achirus achirus 602
mollis 30
brachialis 608
cornifer 608
gronovii 602
inscriptus 602
maculipinnis 602
ornatus 54
Acipenser brevirostrum 26
Acmæa pelta 211, 217
testudinalis **206**
patina **211**, 217
var. patina 211
Acmæidæ from Labrador 206
Acredula 382
caudata 382

Page.

Acredula caudatus 386
macrura 286
rosea 383, 384
a trivirgata 384
trivirgata 384
Acronurus 594
carneus 48, 594
cœruleatus 48, 594
nigriculus 48, 594
Actias **428**, 429, 430
luna **429**
var. dictynna 429
Actinotrichia, atrophy of 75
coalescence of 75
development of 75
first proposed 71
Actitis macularia **628**
Actodromas maculata **628**
Adams 304
Arthur 213, 214
Adelphicos quadrivirgatus 190
Adipose fins, development of 79
theory of survival of 72
Admete **298**, **299**
couthouyi 298, 299
crispa 298
middendorffiana 297
viridula 298
var. lævior 298
Æchmophorus occidentalis 179
Ægitalitis semipalmata **627**
vociferous 178
Aegithalos 382, 383
caudatus 386
measurements **386**
europæus 383
trivirgatus **384**
Ægithalos **374**
caudatus 384, 385, 387
macrurus 386
europæus 384, 386
measurements **386**
trivirgatus 384, 385
measurements **385**
Aegithalus 382, 387
caudatus 386
pendulinus 382
Ægithalus consobrinus 388
pendulinus 388
pendulinus? 387

Page.
Aegythalus ... 382
Ælurichthys bagre ... 559
longispinis ... 559
marinus ... 26, 559
Æolidia papillosa ... 210, 217
Æstrelata fisheri ... 656
hæsitata ... **95, 96**
phæopygia ... **96**
sandwichensis ... **95, 96**
Agachona—Gallinago sp ... 178
Agama cornuta ... 194
Agassiz, Alexander ... 76, 259, 262, 274, 283
Echini collected by ... 552
papers of ... 258
Louis ... 3, 530
Agassizia excentrica ... 290
scrobiculata ... 290
Agelaius gubernator ... 152
phœniceus ... 151
Aglia ... 434
Agonostomus microps ... 571
monticola ... 571
percoides ... 571
Aguacatero—Biranga sp ... 140
Aguador—Chætura sp ... 158
Aguaji Bonaci—Mcteroperca sp ... 40
Aguitera, Señor J. G ... 553
Aguilucho negro ... 167
pardo ... 167
Aguja de Casta ... 353
Agujon—Tylosurus notatus ... 35
raphidoma ... 35
Ailanthus glandulosa ... 417
Aimophila melanotis ... **145**
rufescens ... 145
ruficauda ... **146**
Aix galericulata ... 655
Ajaja rosea ... **627**
Ajolote—Amblystoma sp ... 199
Akagera—Dryobates gouldii ... 112
japonicus ... 109
Alaska, mammals from ... **221**
Alauda pensilvanica ... 136
spragueii ... 136
Alausa striata ... 33
striata ? ... 561
"Albatross," annelids taken by the ... **547**
Albula ... 542
conorhynchus ... 33
vulpes ... 33, 561
Albulidæ ... 561
of Havana ... 33
Alburnops nubilus ... 2
Alburnus megalops ... 22
zonatus ... 2, 3
Alca torda ... 658
Alcedinidæ of Grenada ... 620
Japan ... **102**
Mexico ... 160
Alcedinoideæ of Japan ... **102**
Alcedo alcyon ... 160
amazona ... 161
cabanisi ... 161
torquata ... 160
Alepisauridæ ... 562

Page.
Alepisaurus altivelis ... 562
Alguacil—Calocitta sp ... 153
Almeida, Don Fr ... 353
Alondra de la majada—Anthus sp ... 136
Alophonerpes ... 123
Alophus ... 123
Alopias vulpes ... 556
Alopiidæ ... 556
Alosa bishopi ? ... 561
Alphestes afer ... 40, 581
Alutera güntheriana ... 605
monoceros ... 605
picturata ... 605
punctata ... 605
schœpfi ... 30
scripta ... 605
Alvania aurivillu ... **308**
castanea ... **308**
var. alaskana ... **307**
castanella ... **307**
Alvarius fonticola ... 13, **23**
(Microperca) punctulatus ... 23
Amarillito—Passerina sp ... 142
Amaurornis ... **395, 405**
phœnicurus ... **405**
Amazilia mariæ ... 158
Amazon, new Picolaptes from the ... **523**
Amblygobius ... 487
Amblyopus ... 596
brevis ... 512
broussoneti ... 512
mexicanus ... 513
mexicanus ? ... 512
sagitta ... 511, 512
Amblyrhynchotus ... 233, 243
Amblyscion ... 587
Amblystoma tigrinum ... 199
Ameiva undulata ... 195
Amia ... 542
aluta ... 607
binotata ... 586
imberbis ... 586
maculata ... 586
pigmentaria ... 586
puncticulata ... 586
stellata ... 586
Amiatus ... 542
Amichthys diapterus ... 586
new genus ... **586**
Amiurus, adipose dorsal of ... 80
development of adipose dorsal of ... 81
maxillary barbel of ... 73
melas ... 22
natalis ... 7
nebulosus ... 22
catulus ... 20, **22**
Ammocrypta ... 12
clara ... 14, 16
pellucida ... 9
vivax ... **9**, 12, 16
Ammodramus sandwichensis alaudinus ... 145
Ammonites ... 250
Amore guacu ... 500, 501
Ampelidæ of Mexico ... 138
Ampelis cedrorum ... 138

Page.
Ampelis japonicus 648
Amphibia, ancestry of 81
Carboniferous 81
median fin-folds of 81
Permian 81
Amphispiza serrariperezi, new species **143**
mystacalis 143
quinquestriata 143
Anableps anableps 564
coarctatus 654
elongatus? 564
microlepis 564
tetrophthalmus 564
Analyses of cinchona barks **438, 440**
Ananchytidæ 287
Anas aberti **173**
acuta 174
analysis of species of **173**
boschas **173**, **630**, 655
carolinensis 173
collaris 174
cyanoptera 174
diazi **172**, **173**
redescribed **171**
discors 174, **630**
fulvigula 171, **173**
obscura 172, **173**
rubida 174
strepera 173
zonorhyncha 655
Anatomy in classification 75
Anchisomus 233
angusticeps 236
caudacinctus 247, 605
geometricus 240
reticularis 240
Ancistrus 560
Ancylodon ancylodon 588
jaculidens 588
Ancylopsetta quadrocellata 29
Anelytropsidæ of Mexico 196
Anelytropsis papillosus **196**
Anguidæ of Mexico 194
Anguia—Anguilla rostrata 34
Anguilla anguilla 567
latirostris 567
rostrata 21, 22, 26, 34
cubana 567
Anguillidæ 567
of Havana 34
Animal sacrifices by Vikings 459
Anisotremus bilineatus 584
obtusus 584
serrula 584
spleniatus 42
spleniatus? 584
surinamensis 584
trilineatus? 584
virginicus 42, 584
Annelids, new species and genus of **547**
Anodonta decurtata 253
Anolidæ of Mexico 191
Anolis nannodes 191
nebulosus 191
Anomia gryphorhyncus 252

Page.
Anoplogaster cornutus 578
Anosmius 245
Anous stolidus **632**, 655
Ansar salvage 171
Anser albifrons 659
gambeli 171, 653, 655
brachyrhynchus 655
cygnoides 655
erythropus 655, 659
Gambeli 171, 659
grandis 658
segetum 655, 658
middendorffi 655, 658
var. serrirostris 658
Antennariidæ 603
Antennarius annulatus? 603
histrio 603
marmoratus 603
multiocellatus 603
ocellatus 603
pleurophthalmus 603
scaber 603
tenebrosus 603
Antherea 439
Anthias 475, 533
asperilinguis 533
macrophthalmus 41
martinicensis 533, 580
vivanus 229, 533
Anthus ludovicianus 136
pensilvanicus 136
spragueii 136
spragueii **136**
Antidæ of Grenada 630
Mexico 171
Antigonia capros 577
Antrostomus vociferus 158
Apseudobranchus toëroe 588
Apsicephalus 233, 243
(Promecocephalus) lævigatus 232
Apsilus dentatus 535
fuscus **535**
Aphanacanthes 243
Aphanacanthus 233
Aphelocoma sieberi 153
sieberii 153
Aphoristia, analysis of species of **54**
atricauda **54**
diomedeana 603
elongata **54**
fasciata 30, 53, **54**
marginata 603
nebulosa **53**
ornata 53, 54
pigra 603
plagiusa **53**, **54**, 603
pusilla 603
Aphyonus mollis 601
Apionichthys nebulosus 603
unicolor 603
Apipisca grande de alas largas 179
Larus sp 179
Aplodinotus grunniens 10, 14, 21
Apogon 542, 586

Page.
Apogon pigmentarius **43**
Apogonichthys 586
Apogonidæ of Havana 43
Aprion macrophthalmus 42, 535, 583
virescens **535**
Aprionodon 556
Apsilus dentatus 583
Aquilonaria, new genus **204**
Turneri, new species **204**
Aramaca 602
pætula 608
papillosa 602
soleæformis 602
Aramidæ of Mexico 177
Aramides albiventris 177
Aramus 402
Arbacia 263
nigra 263
punctulata 263, 264
pustulosa 257, 264
spatuligera 264
stellata 264
Arbaciadæ 263
Archosargus probatocephalus aries 585
tridens 585
unimaculatus 585
Arctic seas, mollusks of **202**
Arctomys pruinosus **224**
Ardea cærulea 170
candidissima 169, **626**
egretta 169
exilis 170
herodias **626**
lentiginosa 170
nævia 170
tricolor ruficollis 169
violacea 170
virescens 170, **626**
Ardeidæ of Grenada 626
Mexico 169
Ardeola—Botaurus sp 170
Ardilla (spermophilus) 129
canela (sciurus sp.) 129
pinta de tierra (spermophilus sp.) 129
Ardillon canela—Sciurus sp 129
spermophilus sp 129
Arisu—Jynx torquilla 102
Arius 558
equestris 559
milberti 559
quadriscutis 559
valenciennesi 559
Arkansas fishes collected 1, 10, 13
River basin fishes 6
Armadillo—Tatusia sp 130
Armillo—Tropidinius dentatus 42
Arothron 233, 241, 242, 243
erethizon 244, 247
Arraous, misprint for Awaous 49
Artedi 340
Artibeus perspicillatus 128
Arvicola riparius 223
Ascomys mexicanus 129
Asio accipitrinus 164
Aspidodiadema 266

Page.
Aspidodiadema antillarum 266
Jacobyi 266
Asthenosoma hystrix 267
Astriclypeus manni 285
Astronesthes niger 563
richardsoni 563
Astronotus adspersus 592
bimaculatus 592
pulcher 592
tetracanthus **48**, 582
Astropyga pulvinata 267
Astroscopus anoplos 608
Asturina plagiata 166
Astyanax 560
Astyris rosacea 218
Athene whitneyi 165
Atherina arsæ 607
boscii, type of **530**
harringtonensis 571
laticeps 36, 571
macrophthalma 571
martinica, types of **530**
microps 571
stipes **36**, 571
veliana 36, 571
Atherinidæ 571, 607
of Havana 36
Athlennes **345**, 361, 568
new subgenus **342, 359**
Atlapetes pileatus 148
rubricatus 148
Atotola—Plegadis sp 171
Atropus undulatus 190
Attaci 414
Attacinæ **414, 415**, 427, 428
Attacus **416, 418, 419**, 421, 423, 429, 430, 434
angulifera 418, **419, 424**
atlas 420
californica 426
calleto 418, **419**, 420, **422**
ceanothi 418, **419**, 425, **426**
cecropia 418, **419**, 422, 423, 424, 425, **426**, 427
cinctus 418, **419**, 420, **421**
columbia 418, **419, 424, 425, 426**
euryalus 427
gloveri 418, **419**, 424, **425, 426**, 427
orizaba 418, **419, 421**
polyommata 418
promethea 418, **419, 423**, 424
splendidus 418, **419**, 421, 422, 423
Audubon & Bachman 410
Aulacoramphus prasinus 163
atrogularis 93
dimidiatus, new species **93**
Aulostoma cinereum 570
coloratum 570
maculatum 570
Aulostomidæ 570
Aurivillius, Carl 209, 210, 211, 212, 213, 216, 308
Auris thazard 574
Awaous ? 499
Awaous (Arraous by error) 49
Awo-gera—Picus awokera 105
Axolotl—Amblystoma sp 199

Page.
Ayacatcho—Campylorhynchus sp. 135
Aylopon martinicensis 580
types of **533**
Aythya affinis 174
mariloides 655
collaris 174
cristata 655
ferina 655
fuligula 655
marila 655
nearctica 659
Azulejo maicero—Guiraca sp. 141
Azulito—Passerina sp 142

B.

Babihorcado fregata sp 169
Bæopipo 120
Bagrus cœlestinus 559
couma 559
pemecus 159
Baiostoma 602
Baird, Prof. S. F. 127, 409, 410, 413
Bairdiella 587
Bajonado—Calamus bajonado 42
Balanus balanoides 207
ovularis 207
Balistidæ 604
of Havana 54
Balistes buniva ? 604
capriscus 604
carolinensis 54, 604
macrops **54**, 604
maculatus ? 604
moribundus 604
nebulosus **54**, 604
sobaco ? 604
tæniopterus **54**, 604
vetula 54, 604
Balk 240
Ban (Gallinula sp) 406
Barathronus bicolor 600
Barbero—Acanthurus sp 48
Barbudo—Polynemus virginicus 36
Barissia imbricata 194
Barton Spring fishes 20
Bartramia longicauda **628**
Basileuterus lacrymosus 138
Basiliscо—Basiliscus sp 192
Basiliscus vittatus 192
Bass, Black 12
Rock—Roccus chrysops 14
Bassaris astuta 128
Bathygadus arcuatus 601
cavernosus 601
favosus 601
longifilis 601
macrops 601
Bathynectes 600
Bathyonus catena 600
pectoralis 600
Bathystoma 584
Batrachia of Mexico 197
index to genera of **199**
Batrachidæ 597
of Havana 50
Batrachoides surinamensis 597
Batrachops 243, 244
pelitacus 244
Batrachosoma asio 194
Batrachus crypocentrus **546**
diemensis 546
grunniens 546
guavina 482
tau 28, 597
Bean, Dr. T. H. 37, 40, 53, 336, **347**, 354, 355, 356, 494, 527
Beaufort fishes, list of, and notes on **25**
Beaver 223
Becacina gallinago, sp 178
Beck 304
Bela 298, 302
alaskensis **299**
albrechti **300**
angulosa **299**
arctica 216, 300
exarata 298
gigas 216, 300
harpa **300**, **301**
krausei **301**
lævigata **300**
plicifera 301
sculpturata **299**
simplex 216, 300
solida **301**
turricula 299
violacea **216**, 300
var. ventricosa 300
Belding, L., Echini from 256
Belone **339**, **340**
acus 340, 341
almeida 352, 353, 530
altipinna 357, 529, 568
amazonica 349
ardeola 349, 530
argalus 349
argalus ? 568
belone **340**, 360
cantrainii 355
caribbæa 355, 356, 357, **529**
cigonella 349, 530
cigonella ? 568
cornidii 340
crassa 35, 353, 354, 568
depressa 35, 346, 347, 348, 349, 568
diplotænia 348
euxini 340
exilis 349
galeata 354, 530
gerania 353, 354, 530, 568
gracilis 340
guianensis 359, 360, 530
hians 355, 356, 357, 358
jonesi 355, 568
latimana 355, 356, 568
linnæi 340
longirostris 351
maculata 34, 357, 358, 568
melanochira 35, 353, 354, 568
microps 349
notata 345

Page.
Belone pacifica ... 355
platyura ... 340
raphidoma ... 353, 354
rostrata ... 340
scolopacina ... 359, 360
types of ... **530**
scrutator ... 351
stolzmanni ... 349
subtruncata ... 346, 347, 348
tæniata ... 359, 530
timucu ... 352, 353, 530, 568
type of ... **529**
truncata ... 351, 530
var. guianensis ... 352
vulgaris ... 340
Belonesox belizanus ... 564
Belonidæ ... 360, 568
genera of ... **339**
of Havana ... 35
review of ... **339**
Benedict, James E., on new annelids ... **547**
Benthosaurus grallatus ... 563
Bergen Museum, Echini from ... 257
Beringius ... 304
Bering Island mollusca ... 217, 218
report on ... **209**
Sea mollusks, notes on ... **297**
Berycidæ ... 577
Beryx decadactylus ... 578
Beyer, Dr. H. G ... 438
Biajaiba—Lutjanus synagris ... 41
Bibron ... 242, 243
Bill-fish ... 351
Binney, W. G ... 460, 461
Birds from a bead belt ... 92
the Liu Kiu Islands ... **634**
genera of Mexican ... 180
new species of ... 92
of Grenada, West Indies ... **609**
Mexico ... 130
catalogue of ... **130**
new species of ... **130**
review of Japanese ... 99, **374**, **395**
Bischoff, Ferdinand ... 173
Bistlacuachi—Synetheres sp ... 130
Blacicus brunneicapillus ... 617
flaviventris ... **617**
Blackbird ... 615
Blakiston, Capt. Thomas ... 109, 110, 114, 115, 117, 119, 120, 121, **387**, 393, 399, 407, 635
collected woodpeckers ... 115
distinguished Japanese birds ... 100
on Japan water-birds ... **652**
Japanese wryneck ... 103
Picus from ... 108
presented birds ... 99
sent Picus ... 106
and Pryer ... 116, 375, 379
Bleeker, Dr. P ... 49, 57, 243, 245, 477, 488, 499
Blenniidæ ... 608

Page.
Blenniidæ of Havana ... 50
Blennius ... 51
asterias ... 608
crinitus ... 599
favosus ... 608
pantherinus, type of ... **544**
stearnsi ... 608
Blennophis ... 598
Blepharis crinitus ... 37
Bligh, S ... 400
Bloch ... 40, 41, 240, 246
and Schneider ... 352, 542
Blyth ... 403
Boa ... 183
imperator ... 183
Boat-caulking material ... 453
early Scandinavian ... 450
mats ... 453
planking ... 453
positions ... 447
dimensions of ... 448
remains ... **448**, 449
at Suffolk, England ... 448
representation of Stratsund ... 444
representations of Sweden ... 447
rudder, ancient ... 452
shaped burial groups ... 446
thwarts ... 452
Northland ... 443
Boatswain (Phaëthon sp.) ... 631
Bobo—Momotus sp ... 160
Bobolink ... 616
Boca Dulce ... 32
Bocon—Cetengraulis edentulus ... 33
Stolephorus browni ... 33
Bocourt, M ... 189
Bodianus apua ... **40**
aya ... 41
marginatus ... 40
rufus ... 45, 589
pulchellus ... 589
stellifer ... 540, 587
Boehmer, George H., on Norsk naval architecture ... **443**
Bogdanow, Professor ... 397, 399, 400
Boidæ of Mexico ... 183
Boie ... 382
Boleichthys gracilis ... 10
whipplei ... 9
Boleosoma camurum ... 9, 12
Bollman, Charles H ... 466, 470, 471
on Escambia River fishes ... **462**
Bombycilla cedrorum ... 138
Bombyx ... 416, 419, 423, 427, 429, 430
Bonaci Cardenal—Mycteroperca sp ... 40
de Piedra—Mycteroperca sp ... 40
Gato—Mycteroperca tigris ... 39
Bonaparte ... 103
Booby, Red-foot ... 630
(Sula sp.) ... 630
White ... 631
Boog-Watson ... 297
Boops carabaicus ... 585
Botaurus exilis ... 170

Page.
Botaurus lentiginosus 170
Bothrops atrox 190
Bothus maculatus 29
Bottle-tit, Japanese 384
white-headed 386
Bovidæ from Alaska 224
Box 585
Brachiopoda from Labrador 208
Brachycephalus 241, 243
Brachygenys 584
Brachylophus 104
Brachyramphus craveri 656, 657
hypoleucos 656, 657
kittlitzii 655, 656
marmoratus 656, 657
perdix? 655, 656
perdix 657
Brachyrhinus creolus 580
furcifer 39
preoccupied 39
Bradley, Prof. Frank H 244
Brama agassizii 577
brevoortii 577
raji 577
saussurii 577
Bramidæ 577, 607
new genus of **467**
Branchiostoma caribæum 554
lanceolatum 26, 554
median fin-folds in 81
Branchiostomidæ 554
Branta canadensis hutchinsii 655
nigricans 655
Brayton, A. W 25
Bregmaceros atlanticus 601
Brehm, A. E 368, 397
C. L 365, 366, 367, 368, 373
Brevoortia tyrannus 26
aurea 561
Breynia australasiæ 288
Brissina 289
Brissopsis lyrifera 289, 290
Brissus carinatus 290
Bristle Bay mammals **221**
Bristle Fin—Selene vomer 37
British Museum, fishes presented to 32
Brotula barbata 51, 600
Brótula—Brotula barbata 51
Brotulidæ 600
of Havana 51
Brown 37
Buarremon albinucha 141
brunneinucha 141
Bubalichthys bubalus 14
Buccinidæ 304
from Labrador 205
Buccinum cyaneum **206**, 216
var. mörchianum 215, 216
grönlandicum **206**
mörchianum 216
muriciforme 302
percrassum **216**, 218
plectrum 206
polare 216
tenue 215, 218

Page.
Buccinum var. elatior 215
undatum, var. undulatum 206
var. mörchianum 218
Bufo canaliferus 198
cognatus 198
compactilis 198
intermedius 198
marinus 198
valliceps 198
Bufonidæ of Mexico 198
Bulinus rhomboideus 252
Bullon—Scarus croicensis 47
Burial groups, boat-shaped 446
vessels 449
Burrito—Ampelis sp 138
Buteo abbreviatus 167
albicaudatus 167
borealis calurus 167
var. calurus 167
brachyurus 249
calurus 167
fuliginosus 249
latissimus 249, **622**
melaniatic, specimen of .. **248**
Buteo pennsylvanicus 167, 249

C.

Caballerote—Lutjanus griseus 41
Caballito—Hippocampus punctulatus 35
Cabanis 134
Cabanis and Heine 118
Cabezota—Atherina stipes 36
Cabra mora—Epinephelus sp 40
Cabrilla—Epinephelus catus 40
Cacalote—Corvus sp 153
Cacalotl—Corvus sp 153
Cachucho—Etelis oculatus 42
Cacicus holosericeus 149
prevosti 149
Cacomistle—Bassaris sp 128
Caddo River fishes taken 10
Cadlina pacifica 210, 217
Cæligena henrica 157
Cagon—Rhomboplites aurorubens 42
Caji—Lutjanus caxis 41
Calamus 32
arctifrons 607
bajonado 42, 537, 585
calamus 42, 585
macrops 585
medius 584
megacephalus 42
microps **537**
microps? 585
milneri 585
orbitarius 42, 585
penna 537, 538, 585
pennatula 585
plumatula **537**, 585
proridens 42, 585
review of **41**
Calandria café 150
cerquera de cabeza blanca 141
de agua 138
fuego—Icterus sp 150

Page.
Calandria —Icterus sp 149, 150
negro del quiote—Icterus sp..... 150
ordinaria—Icterus sp 150
real—Icterus sp 150
tunera—Icterus sp 150
zapotera—Icterus sp..... 150
California, new land shell from..... **460**
Caligus piscinus 310
Callechelys bascanium 467, 606
muræna, new species **466**
muræna..... 606
scuticaris.....467, 606
teres.....467, 606
Callichthys kneri 559
lævigatus 559
littoralis..... 559
subulatus..... 559
thoracatus..... 559
Calliodon 542
acutus 592
auropunctatus 47
bollmani..... 607
cœlestinus 543, 592
cœruleus 591
croicensis 591
dentiens..... 45, 46
evermanni..... 607
flavomarginatus..... 591
guacamaia 543
pleianus..... 592
punctulatus..... 591
quadrispinosus 542, 592
retractus ?.....45, 47, 590
rostratus 592
simplex 592
tæniopterus 543, 591
trispinosus..... 592
vetula..... 591
Callionymidæ 596
Callionymus bairdi ? 475
pauciradiatus 596
Calliste cucullata 613, 614
versicolor..... **613**
Callogobius 487
Callorhinus ursinus..... 222
Callosamia 418, 419, 423, 424
Callyodon 590
auropunctatus **227**
auropunctatus, type of **542**
flavescens 590
retractus **227**
ustus **227**
ustus, type of..... **541**
Callyodontichthys bleekeri..... 590
Calocitta formosa 153
Caloradia..... **428**
Calosaturnia **428**
mendocino..... **432**
new genus **431**
Camaleon—Phrynosoma sp..... 194
Campephilus guatemalensis..... 158
Campostoma anomalum 2, 7, 11, 17, 19, 20
Campylopterus hemileucurus 157
Campylorhynchus jocosus..... 135
zonatus 135

Page.
Cancellaria **298**
Cancellaria (Admete ?) middendorffiana **297**, **298**
buccinoides 298
sinensis 298
Cancroma zeledoni 171
Candelero—Himantopus sp..... 178
Candil—Myriopristis jacobus 38
Cañero—Agelaius sp 151
Canidæ from Alaska 221
Cantherines 604
Canthidermis asperrimus 604
longus 604
melanopterus..... 604
sufflamen 604
Canthigaster **231**, 242, 243, **244**, 245, 247
analysis of species of..... **245**
capistratus..... 246
punctatissimus.....**245**, **246**, 247
rostratus **229**, **245**, **246**, 247, 605
Canthigasterinæ..... **231**
Canthogaster caudicinctus 246
lobatus 236, 247
Cantor, Dr 362
Caprimulgidæ of Japan **101**, **102**
Mexico 158
Caprimulgus albicollis 158
vociferus..... 158
Caprophonus aurora 577
Carajo Reale—Elops saurus 33
Carajuelo—Holocentrum ascensione..... 38
Blanco—Malacanthus plumieri. 48
Carangidæ 574
of Havana..... 36
Caranginæ 574
Carangoides cibi 36
iridinus 36
Carangus fallax 36
Caranx amblyrhynchus 575
ascensionis 575
aureus 575
bartholomæi 27, 36, 575
type of..... **531**
beani..... 27, 531
blochi 575
chrysos 36, 575
chrysus 27
cibi 531, 575
ciliaris 575
crinitus 27, 37
cubensis 575
dentex 575
fallax 531, 575
frontalis..... 575
heteropygus..... 575
hippos 27, 36, 575
iridinus 575
latus 27, 36, 531, 575
lepturus..... 36, 575
lugubris..... 36, 575
ruber..... 36, 575
secundus..... 575
sexfasciatus.....36, **531**
Caranxomorus plumieranus 474
Carapus..... 565

Page.
Carapus affinis ? 600
Carbo mexicanus 169
Carbonarius 123
Carbonero—Spizella sp 144
Carcharias 555
americanus 310, 315
fissidens ? 555
henlei 555
leucos 555
littoralis 26
mülleri 556
punctatus 556
remotus 555
(Scoliodon) lalandi 32, 556
Carcharhinus acronotus 555
brevirostris 556
falciformis 32, 555
isodon 556
lamia 555
leucos 555
limbatus 556
longirostris 556
longurio **32**
maculipinnis 555
nicaraguensis 556
obscurus 316
oxyrhynchus 556
perezii 555
platyodon 555
porosus 555
remotus 555
signatus 556
terræ-novæ 26, **32**, 556
Carcharodon Atwoodi 310, 315
Cardenal—Pyrocephalus sp 154
Cardinal—Piranga sp 140
Cardita planicosta 253
Cardium blandum 218
ciliatum **207**
curtum 251
grönlandicum 218
Carduelis notata 149
Carcete (Sterna sp.) 632
Caribou, woodland 224
Carpenter, Dr. 211, 213, 214
Carpintero amarillo—Sphyrapicus sp 159
Campephilus sp 158
chiliilito—Dryobates sp 159
Chloronerpes sp 159
de alos rojas 160
de cabeza amarilla 160
colorada 160
de pino—Dryobates sp 159
negro—Melanerpes sp 159
real—Ceophlœus sp 159
Carpiodes tumidus 18
Carpodacus hæmorrhous 149
mexicanus 149
Casabe—Chloroscombrus chrysurus 38
Cassiculus melanicterous 149
melanicterus 149
Cassicus holosericeus 149
montezuma 149
Cassidulidæ 286
Cassin, Mr. 94, 407, 524, 640
Castor fiber 223
Castoridæ from Alaska 223
Catalineta—Anisotremus virginicus 42
Catalufa—Priacanthus catalufa 41
de lo Alto—Pempheris sp 38
Cataphorhynchus 233
Cataphractus 559
Catharista atrata 168
Cathartidæ of Mexico 168
Catophorhynque 243
Catostomus nigricans 7, 11
Caudisona basilisca 191
Caulolatilus chrysops 594
cyanops 594
microps 607
Caulopus pœyi 562
Caxcax—Aphelocoma sp 153
Cayennia guichenoti 596
Cazon 32
Ceiba 622
Cenozoic invertebrate types, list of **250**
Centrontle—Mimus polyglottos 132
Centropomidæ 578
of Havana 39
Centropomus affinis 39, 579
appendiculatus 39, 578
armatus 39
ensifer 579
ensiferus 39
medius 578
parallelus 579
pectinatus 579
pedimacula 39, 578
undecimalis **39**, 578
Centropristes atrarius rufus 579
atrobranchus **532**
brasiliensis **533**
merus 580
rufus, type of **533**
subligarius 533
Centropristis ayresi 579
dispilurus 27, 579
macropoma 579
ocyurus 607
radians 579
subligarius 27, 579
Centrostephanus Rodgersii 257
Centurus elegans 160
hypopolius 160
Ceophlœus scapularis 159
Cephalacanthus volitans 28, 50, 597
Cephalogobius 487
Cephaloptera 558
olfersi 558
Cepphus carbo 524, 655, 656, 657
columba 655, 656, 657
mandtii 658
Ceratichthys lucens 8
sterletus 8, 22
Ceratocampidæ **414**, 430
Cerceta café 174
comun 174
de listo verde 173
Cercoleptes caudivolvulus 128
Cerithiopsis emersonii 305

Page.
Cerithiopsis stejnegeri 212, 218, **304**, **305**
(stejnegeri, var. ?) truncatum,
new species **304**
truncatum **305**
tuberculata 305
Cerithium Pillingi 251
totium sanctorum 251
Cernicalo—Falco sp 168
Cerorhinca monocerata 655, 656
Cerquero aguador—Melospiza sp 144
de collar—Amphispiza sp 143
de patilla negra 143
de tierra caliente 145
Certhiola atrata **612**
saccharina **613**
Cervidæ from Alaska 224
Ceryle alcyon 160, **620**
amazona 161
cabanisi 161
torquata 160
Cetengraulis brevis 33, 562
edentulus **33**, 562
Chachalaca—Ortalis sp 175, 176
Chænobryttus gulosus 19, 464
Chænopsis ocellatus 598
Chærojulia bivittatus 63
grandisquamis 63, 64
humeralis 63
Chætodipterus faber 28, 48, 593
Chætodon ataeniatus 593
aya 229, 593
new species **225**
bimaculatus 593
capistratus 48, 593
gracilis 593
littoricola ? 594
maculocinctus 226
ocellatus 48, 226, 593
sedentarius 593
striatus 593
Chætodontidæ of Havana 48
Chætostomus guacharote 560
trinitatis 560
Chætura affinis 158
cinereiventus **620**
vauxii **158**
Chaillu, Paul du 445
Chamæleopsis hernandesii 191
Chamæospiza torquata 148
Chamæpelia inca 175
passerina ? var. pallescens 175
Channomuræna cubensis 565
vittata 565
Chapin—Ostracion sp 54
Characinidæ 560
Characinida, adipose fin of 72
Charadriidæ of Grenada 627
Mexico 178
Charadrius dominicus 178, **627**
mexicanus 178
squatarola **627**
vociferus 178
Chasmodes bosquianus 28
Chaulelasmus streperus 655
Chawan 621

Page.
Cheilichthys 233, 605
asellus 244, 247
psittacus 244
turgidus 234
Cheilodipteridæ 586, 607
Cheilodipterus affinis 586
Chelidon erythrogastra 646
gutturalis 646
javanica 646, 647
measurements of **648**
namiyei, measurements of **647**
new species **646**
neoxena 646
measurements of 648
rustica 646
savignii 646
tytleri 646
Chelidonichthys pictipinnis 597
Chelmo pelta 593
Chelonia imbricata 197
of Mexico 197
Chelonidæ of Mexico 197
Chelonodon 242
Chemnitz 213
Chen hyperborea 655
Cherna Americana—Epinephelus morio 40
Criolla—Epinephelus striatus 40
de Vivero—Epinephelus morio 40
Cherno de lo Alto—Epinephelus sp 40
Chicharro—Trachurops crumenophthalmus 36
Chichicuilote de collar 178
nadador 178
Chile ancho—Playa sp 162
Chilichthys spengleri 237
turgidus 238
Chilomycterus antennatus 606
geometricus 30, 606
orbitosus 606
puncticulatus 606
reticulatus 606
schœpfi 30, 606
spinosus 606
Chilorhinus suensoni 567
Chimæra monstrosa 81, 558
Chimæridæ 558
Chionactis diasii **189**
new species **188**
occipitalis 189
Chirivita—Pomacanthus aureus 48
Chirlota—Sternella sp 152
Chismoso—Calocitta sp 153
Chiton cancellatus 211
insignis 210
(molpalia) stimpsoni 210
submarmoreus 210
Chlorichthys 57, 66
bifasciatus 66, 68
brasiliensis 59
Chloronerpes oleagineus 159
Chloropicos 104
Chloropicus 104
Chloroscombrus chrysurus 27, 38, 575
Chlorospingus olivaceus 140
Chœrojulis 57, 69, 590

Page.
Chœrojulis arangoi 45, 63, 64, 70
bivittatus 45
cinctus 61
crotaphus 64
cyanostigma 45, 59
grandisquamis 70
humeralis 45, 63
internasalis 45, 61, 62
maculipinna 62
radiatus 59
ruptus 61
semicinctus 60
Chohuis—Pipilo sp 146, 147
Chondestes grammacus strigatus 149
grammica strigata 149
strigatus 149
Chondracanthus 317
cornutus 320
cottunculi 318
new species ... **322**
description of species of.. **310**
galeritus 321, 322
new species **317**, **319**, **320**
phycidis 322
new species **320**
Chondrosteans, radical development in.... 74, 75
Chonephorus **49**
bucculentus 595
contractus 595
flavus 595
taiassica **49**, 595
Chonerhinus 231
Chonophorus 477, **480**, 488, **499**, 503
banana 501
bucculentus 499, 501
flavus **499**, **500**, 517, 544
Mexicanus **500**, **501**, 517
taiassica **500**, 501, 517, 543, 544
skeleton of 514
Chorlo real 179
Chordata, median fin-folds of 81
Chorististium rubrum 581
Chorlete desconocido 178
Chriolax 327
Chromis cyaneus 593
enchrysurus 607
fuscomaculatus 592
insolatus 593
punctus 593
Chrysodomus crebricostatus 304
liratus 218
spitzbergensis **205**, 215, 218
(Tritonofusus) kroyeri 215
Chrysotis autumnalis 163
levaillantii 163
Chupa tabaco 191, 192
tierra 171
Chupamirto blanco, &c 158
de cola de tijera, &c 157
verde-mar 157
de pecho color de rosa 157
esmeralda—Amazilia sp 158
pavito azul—Campylopterus sp 157

Page.
Chupamirto real blanco—Sphenoproctus, sp 156
real—Campylopterus sp 157
rubi de cola horquillada 157
rubi—Trochilus sp 157
verde montero 157
Cibi amarillo 531
amarillo—Caranx bartholomæi 36
Mancho ò Carbonero—Caranx ruber . 36
Ciccaba nigrolineata 164
Cichlasoma 48, 592
Cichlidæ 542, 592
of Havana 48
Ciconiidæ of Mexico 171
Cidaridæ 260
Cidaris 260
metularia 260
Thouarsii 260
tribuloides 260
Cinchona anglica 440
barks, analyses of **438**
calisaya 441, 442
carabayensis 440
cordifolia 440
Harskarliana 440
hybrid 440
javanica 440
micrantha 440
officinalis 440
angustifolia 441
condaminea 441
Pahudiana 440
Pelletierana 440
Pitayensis 440
pubescens 441
Schuhkraft 440
succiruba 441
Cincinnati University, fishes sent to 1
Cingula aculeus 306, 307
leptalea 306
minuta 307
robusta **305**, **306**
var. martyni **306**
var. scipio **306**
Cinosternon leucostomum 197
Circus hudsonius 166
Cirrhisomus 232, 233, 242, 605
spengleri 237
turgidus 238
Cirrisomus spengleri 237
testudineus 239
Citharichthys æthalion 55
new species **52**
cayennensis 602
dinoceros 602
guatemalensis 602
macrops **29**
microstomus 29
ocellatus? 602
spilopterus 53, 602
ventralis 602
Citillus Mexicanus 129
Clarin—Myadestes obscurus 133
Clarke, Prof. F. W 438
analyzed fulgurites ... 86, 87

Page.
Clangula albeola 659
glacialis 655
hyemalis 655
Clepticus genizara 45, 589
Clinus bimaculatus 599
nigripinnis 599
Cliola urostigma 14
vigilax 7, 15, 17, 19, 20, 22, 23
zonata 2
Clio helicina 203
limacina 203
Cliona 304
Clione borealis 203
limacina **203**
Clisiocampa 415
Clupea anchovia 561
apicalis 561
callolepis 561
chrysochloris 11, 14, 462
clupeola **33**, 561
humeralis 33, 561
latulus 33
macrophthalma 33, 561
maculosa 33, 561
pseudohispanica 33, 561
sapidissima 462
sardina **33**, 561
Clupeidæ 561, 606
of Havana 33
Clypeaster humilis 281
latissimus 281
Ravenelii 181
rotundus 281
scutiformis 281
subdepressus 281
Clypeastridæ 280
Cnemidophorus communis 195
costatus 195
guttatus 195
lineatissimus 196
sexlineatus 195
undulatus 195
Coale, H. K., bird named for **520**
Cobb, Dr., on fulgurite 91
Cocco 342
Coccothraustes chrysopeplus 141
Coccyzus americanus 162
minor **620**
Cochino—Balistes vetula 54
Cochlearidæ of Mexico 171
Cochlearius zeledoni 171
Codorniz de copete 176
solitaria 176
Cœcula rostrata 566
Cœlopleurus 265
floridanus **265**
Cœrebidæ of Grenada 612
of Mexico 140
Coins discovered, Roman 453, 454
Cojinua—Caranx chrysos 36
Cojolite—Penelope sp 175
Colaptes 104
mexicanus 160
Coleonyx elegans 191
Colinus pectoralis 176

Page.
Colobocentrotus atratus 257, 268
mertensii 257, 268
Colomesinæ 244
Colomesus **230**, 243, **244**, 247
psittacus **244**, 247, 605
Coloradia 414, 415, **436**
pandora **437**
Coloradito de patilla blanca 138
Colorado River, fishes taken 1
Columba cinerea 175
corensis **624**
fasciata 174
leuoptera 175
macroura 174
sieboldii 639
Columbella (Astyris) rosacea 215
Columbidæ of Grenada 624
of Mexico 174
Columbigallina passerina **625**
pallescens 175
Coluber acuminatus 185
annulatus 183
atratus 187
atrox 190
boddaertii 185
cenchoa 184
cloelia 187
corais 185
flavirufus 185
nebulatus 183
proximus 186
sirtalis 186
Colubridæ of Mexico 183
Colymbus auritus 655, 658
cornutus 655
cristatus 655
dominicus 180
holbœllii 655, 658
minutus 655
nigricollis 655
californicus 179
podiceps 180
Comadreja—Putornis sp 129
Commander Islands natural history **209**
Conejo real—Lepus sylvaticus 130
Conger caudicula 607
caudilimbatus 567
conger 26, 34, 567
esculentus 34, 567
macrops 567
multidens 567
Congridæ 567, 607
of Havana 34
Congrio—Conger conger 34
Congromuræna analis 567
balearica 567
Coniophanes proterops 187
punctigularis 188
Conodon nobilis 583
Conolampas Sigabei 286
Conophis pulcher 187
Conopsis lineatus 188
Contopus borealis 155
pertinax 155
Conurus azteco 163

Page.
Conulus fulvus, var ... 217
pupulus ... 219
Cooper, Dr. J. G ... 510, 524
Coot ... 408, 629
Coots of Japan ... 395
Cope, Prof. E. D ... 79, 82, 183, 348
described new snakes 188, 189, 190
on Anelytropsis ... 196
Mexican reptiles ... 182
new Sibon ... 184
Copepoda, Descriptions of parasitic ... **310**
Copetoncito—Parus sp ... 135
Coquito aplomado ... 175
comun ... 175
de monte ... 175
Coraciadidæ of Japan ... **101**, **102**
Coraciadoideæ of Japan ... **102**
Coralillo—Elops sp ... 190
Henicognathus sp ... 188
Leptognathus sp ... 183
Ophibolus sp ... 187
Pliocercus sp ... 188
Rhabdosoma sp ... 189
Sibon sp ... 184
Coralliochama orcutti ... 251
Corbeau ... 621
Corbicula umbonella ... 253
Corbula subtrigonalis ... 253
Corethrura ... 396
erythrothorax ... 398
Coris ... 56, 57, 66
Coronel—Agelaius sp ... 151
Coronella decorata ... 188
fissidens ... 187
formosa ... 187
Corre camino—Geococcyx sp ... 162
Corvidæ of Mexico ... 152
Corvina acutirostris ... 587
biloba ... 587
grunniens ... 587
microps ... 540
monacantha ... 587
Odontoscion dentex ... 44
Sciæna ronchus ... 44
stellifera ... 540, 587
trispinosa ... 587
types of ... **540**
Corvus corax sinuatus ... 153
morio ... 153
sinuatus ... 153
Corydoras æneus ... 560
Corynopoma ... 560
Coryphæna equisetis ... 577
hippurus ... 38, 577
lineata ... 590
Coryphænidæ ... 577
of Havana ... 38
Coryphænoides sulcatus ... 601
Coryphopterus ... 487, **494**
glaucofrænum ... 494
Corythophanes (Chamæleopsis) hernandesii 191
hernandesii ... 191
Mexicanus ... 191
Cossyphus ... 589
Cotingidæ of Mexico ... 156

Page.
Cotorra—Chrysotis sp ... 163
Cottogaster copelandi ... **9**, 12, 13
shumardi ... **9**, 14
uranidea ... 12
Cottunculus ... 324
microps ... 324
? sp ... 324
torvus ... 324
Coturnicops ... 396, **401**
Cotyle fulvipennis ... 139
Cotylopus ... 485
Couch, Lieutenant ... 144
Coues, Dr. E ... 409, 410, 411, 412
Beaufort fishes of ... 25
Coulibri ... 620
Couthony ... 213
Crabier ... 627
Large ... 626
Cracidæ of Mexico ... 175
Crajo azul—Aphelocoma sp ... 153
Crake, Bailloris ... 396, 397
Button ... 401
Red-breasted ... 398
Crax globicera ... 175
Crayracion ... 241, 243
spenglerí ... 237
Creciscus ... 396
Cremnobates affinis ... 599
fasciatus ... 599
marmoratus ... 598
nigripinnis ... 599
nox ... 608
Crenella faba ... **207**
Crenicichla frenata ... 592
Crepidula grandis ... 218
Crex rex ... 400
erythrothorax ... 400, 401
foljambei ... 396
pratensis ... 400
pygmæa ... 396
Crocodilia of Mexico ... 197
Crocodilidæ of Mexico ... 197
Crocodilus americanus ... 197
Crossopterygians, radial development in ... 74
Crotalidæ of Mexico ... 190
Crotalus basiliscus ... 191
durissus ... 191
triseriatus ... 191
Crotophaga ani ... **621**
sulcirostris ... 162
Crucigera, new genus ... **550**
Websteri, new species ... **550**
Cryptochiton stelleri ... 217
Cryptotomus auropunctatus ... **228**, 542, 590
beryllinus, **45**, **46**, **47**, 55, **226**, **227**, **228**, 590
Cuban species of ... 45
dentiens ... **45**, **46**, **226**, **227**, 590
roseus ... 47, **228**, 590
species of ... **227**
ustus ... **226**, **228**, 229, 541, 590
Crypturus sallæi ... 180
Crystallaria asprella ... **12**
Ctenogobius ... 487, 494, 595
fasciatus ... 495

Page.
Ctenosaura pectinata ... 192
teres ... 192
Cuapaxtle—Piaya sp ... 162
Cuauhpaloma—Columba sp ... 174
Cuauhtotola amarilla—Trogon sp ... 162
—Trogon sp ... 161
Cuba, list of fishes from ... 31
Cubera—Lutjanus cubera ... 41
Cockoo manioc ... 620
Cuculidæ of Grenada ... 620
Japan ... **101, 102**
Mexico ... 162
Cucullæa Haguei ... 250
Cuculoideæ of Japan ... **102**
Cuculus americanus ... 162
cayanus ... 162
mexicanus ... 162
Cuervó—Corvus sp ... 153
Cuije—Barissia sp ... 194
Cnemidophorus sp ... 195, 196
Sceloporus sp ... 193
Cuitlacoche de pecho pinto oscuro ... 132
Culebra—Adelphicos sp ... 190
café ... 186
chata ... 188
chica ... 196
—Chionactis sp ... 188
de agua ... 183, 186
—Henicognathus sp ... 188
negra ... 185, 189
—Ninia sp ... 187
pinta ... 183
rayada ... 186
ranera ... 186
rayada ... 187
—Rhabdosoma sp ... 189
spilotes sp ... 185
—Stenostoma sp ... 18[3]
Tantilla ... 189
Trimorphodon sp ... 184
Tropidonotus sp ... 186
verde ... 185
Culius ... 483, 595
æquidens ... 483
amblyopsis ... 595
perniger ... 49, 483, 595
Curiculus torquatus ... 223
Curimatus argenteus ... 560
Curlew ... 629
Large ... 629
Cuspidaria—(Cardiomya) pectinata, var. beringensis ... 216, 218
Cuvier ... 45, 67
and Valenciennes ... 50, 501
types, notes on ... **525**
Cyanistes ... 374
Cyanocitta stelleri diademata ... 152
Cyanocorax cucullatus ... 153
ornata ... 153
ornatus ... **153**
Cyanogarrulus diadematus ... 152
Cybium ... 574
caballa ... 36
Cyclogobius ... 501
sara ... 574

Page.
Cyclaris flaviventris ... 138
Cyclichthys cornutus ... 606
Cyclogaster ... 542
Cyclopterus nudus ... 597
Cyclorhis, a new subspecies of ... **519**
flaviventris ... 381, 510
yucatanensis, new subspecies ... **519**
Cyclorrhynchus psittaculus ... 655, 656
Cyclura pectinata ... 192
teres ... 192
Cygnus musicus ... 655
Cylichna propinqua ... 117, 210
reinhardti ... 210
Cymospira gigantea ... 551
incrassata ... 552
litigera ... 553
Cynoponticus ... 567
Cynoscion acoupa ... 588
guatucupa ... 540
leiarchus ... 540, 588
maculatum ... 28, 540
microlepidotum ... 588
obliquatum ... 588
regale ... 28, 540
reticulatum ... 540
virescens ... 588
Cyphorhinus leucostictus ... 136
Cyprina Dallii ... 250
Cyprinella analostana ... 8
cercostigma ... 14
texana ... 17
venusta ... 14
Cyprinodon felicianus ... 564
martæ ... 564
variegatus ... 26
riverendi ... 564
Cyprinodontidæ ... 563
of Havana ... 34
Cyprinoids, auditory ossicles of ... 72
dorsal fins of ... 72
Cyprinus, maxillary barbels of ... 73
megalops ... 22
Cypselidæ of Grenada ... 620
Cypselus vauxii ... 158
Cystignathidæ of Mexico ... 197

D.

Dactyloa nebulosa ... 191
Dactyloscopus poeyi ... 598
tridigitatus ... 475, 598
Dafila acuta ... 174, 655
Dale, Dr. F. C., Echini from ... 257
Dall, W. H ... 210, 213, 460, 461, 524
collected Echini ... 256
on Bering Island mollusks ... **209, 297**
Labrador mollusks ... **202**
Darters in Rio San Marcos ... 21
Darwin, Charles ... 83
on fulgurites ... 88, 89, 91
Dasyatidæ ... 557
Dasyatis hastata ... 557
sayi ... 33, 557
tuberculata ... 557
Dasybatis sayi ... **26**

Page.
Dasypodidæ of Mexico 130
Dasypus novemcinctus 130
David, Porzana found by 400
Davidson, Prof. George 524
Decapterus macarellus 574
punctatus 36, 574
sanctæ-helenæ 574
Decaptus 576
Decodon puellaris 589
Defrancia Beckii 300
viridula 298
Degeneration defined 79
remarks on theory of 71
restricted 80
Degoliado—Hadrostomus sp 156
Degradation of structures 80
ontogenetic 80
phylogenetic 80
Deltentosteus 487
Denarii, Roman, discovered 453
Dendrocolaptes affinis 156
Dendrocolaptidæ of Mexico 156
Dendrocopos 108
Dendrocoptes 108
Dendrocopus 108, 123
immaculatus 120
pinetorum 124
Dendrodromas 108
insularis 117
Dendrœca auduboni 137
chrysoparia 137
Dendroica æstiva 137
auduboni 137
chrysoparia 137
æstiva 137
petechia **611**
virens 137
Dendrornis flavigaster 156
Dentex filamentosus 583
macronemus 583
De Oca, Rafael Montes 182
Dermatolepis inermis 41, 581
Deshayes, Lacunella of 212
Desmarest 47, 535
Desmosticha 260
Diabasis lateralis 584
parra 535, 536
Diablo—Malthe vespertillio 54
Diadema 265
mexicanum 265
setosum 257, 265, 266
Diadematidæ 265
Diapterus 589
lefroyi 589
Diaz, Agustin 125, **172**
General Porfirio 125, 126
Señor Augustine, snake named for ..188, 189
Dicerobatis 558
Dichotomycter 241, 243
Didelphidæ of Mexico 130
Didelphis virginiana 130
Diglossa baritula 140
Diller, J. S 83
described fulgurites 84
on fulgurites 87, 88, 91

Page.
Dilobomycter 233, 241
Dilobomyctère 242
Dinemus 577
venustus 577
Diodon atinga 606
geometricus 606
holacanthus **55**, 606
hystrix **55**, **606**
liturosus **55**
maculatus **55**, 606
maculifer 606
spinosissimus **55**, 606
Diodontidæ 233, 241, 606
of Havana 55
Diomedea albatrus 655, 656, 658
derogata 655, 656
nigripes 655, 656
Dionda **2**
episcopa **23**
Diplectrum formosum 579
radiale 579
radians 39
Diplesion bennioides 5, 9, 13
Diplodus argenteus 538, 585
aries 539
ascensionis 538
capensis 585
flavolineatus 42, 538
holbrooki 27, 538
probatocephalus 27, 43, 538
rhomboides 28
sargus 585
unimaculatus **42**, **43**, 538
Diploglossus (Celestus) steindachneri 195
Diploglossus steindachneri 195
Diplolepis 587
Dipnoëns, fin-rays of 71
Dipnoi, actinotrichia of 71, 72
development of median fins of 73
fins of 77
Dipodomys agilis 409, 410, 412, 413
a study of **409**
Heermanni 409, 410
measurements of **411**
montanus 409, 410
Ordii 409, 410, 411
phillipii 409, 410
phillipsi 412, 413
ordii 409
(typicus) 411, 412
phillipsii 409, 410
Wagneri 409, 410
Dipsas cenchoa 184
gemmistrata 185
gemmistratus 185
Dipus 410
Disceus 557
Diver (Podilymbus sp.) 633
Red-back 633
Dives dives 152
sumichrasti 152
Dobson, Dr 410
Dr. Geo. A., shrew sent to 222
Doctor Bird 619
Dodarlein, Prof. Pietro 354

Page.
Doering, George E., analyzed cinchona barks **438**
Dog-fish 310, 312, 314, 315
Dohrn, Dr 74
Dolichonyx oryzivorus **616**
Doll, J 436
Dominiquito del sur—Sporophila sp 142
Euetheia sp 142
negro de las cañas 142
Doncella 60, 65
Platyglossus bivittatus 63
radiatus 45, 59
Dorado—Coryphæna hippurus 38
Doratonotus megalepis 590
thalassinus 590, 607
Doricha eliza 157
elizæ 157
Dormitator **478**, 480, **482**
grandisquama 544
gundlachi 482
latifrons 483, 516
lineatus 482
maculatus **482**, 516, 544, 594
microphthalmus 483
Dorocidaris 261
Bartletti 261
Blakei 261
papillata 261, 262
var 262
Dorosoma cepedianum 8, 11, 14, 24, 462
Doryichthys 570
Doryrhamphus lineatus 570
Dove, Ground 625
Mountain 625
Pea 624, 625
Seaside 624
Trinidad, ground 624
Dresel, H. G 29
Dresser 107, 115, 366, 368, 402, 403, 408
Dresser & Sharpe 200, 201
Droitaumont, Count von Gourcy 366, 367
Drouet, , Picus from 108
Drymobius boddaertii 185
margaritiferus 185
Dryobates **108**, 120
a probable hybrid **521**
cirris 113, 114, 115, 119
gairdnerii **522**
gouldii **108**, 110, **112**
immaculatus **120**
in Japan **104**
insularis **117**
Japanese forms of **108**
japonicus **108**, **109**, 110, 111, 112
leucotos **108**, 113, **114**, 115, 116, 117, 119
lilfordi 107, 117
major 111, 112, 115
medius 112
minor **108**, **119**
namiyei **108**, 117, 119
new species **116**
nuttallii **521**, **522**
pipra 119
pubescens gairdnerii **521**
purus 111, 112
Page.
Dryobates scalaris **159**
subcirris **108**, 114, 115, 117, 119
measurements of **114**
new species **113**
villosus jardinii **159**
Dryocopus **123**
alpinus 124
in Japan **104**
martius **123**, **124**
niger 124
richardsi **123**, **124**
synopsis of Japanese **123**
Dryophis acuminata 185
Dryopicus 123
Dryotomus 123
Duck, Black 630
Buffle-headed 659
Ruddy 630
Ducks, fresh-water 659
Dugès, Prof. A 165
Dunker 213, 214
Dussumieria lamprotænia 562
stolifera 606
Dybowski, Dr 657, 660
Dyctiopicus 108
Dymécodon, new genus of moles **97**
pilirostris, measurements of **98**
new genus and species **97**
new species **97**
Dysopes glaucinus 127

E.

Echeneididæ 572
Echeneis apicalis 572
naucrates 27, 572
postica 572
Echidna catenata 565
caudata 429
flavofasciata 565
fuscomaculata 565
Echinanthidæ 281
Echinanthus rosaceus 281
testudinarius 282
Echinarachnius excentricus **282**, **283**
mirabilis 257, 283
parma 257, **283**, **284**
Echini, Alaskan 256
described by A. Agassiz 257
from U. S. Coast Survey 255
U. S. Fish Commission 255
index to species of 292, 293
of the "Blake" expedition 258
North Pacific expedition 256
Wilkes expedition 256
papers of A. E. Verrill 258, 259
R. Rathbun 258
recent, catalogue of **255**
Echinidæ 276
Echinocardium australe 257
cordatum 289
flavescens 289
Echinocyamus pusillus 257, 280
Echinodiscus auritus **284**
lævis 257, **284**

Page.
Echinolampas depressa 286
Echinometradæ 268
Echinometra lucunter 257, 269
oblonga 269
subangularis 269, 270
Van Brunti 270
viridis 270
Echinonëus cyclostomus 286
Echinonidæ 286
Echinothrix 266
calamaris 266
turcarum 257, 266
Echinothuridæ 267
Echinus acutus 277
angulosus 257, 277
elegans 277
esculentus 277
gracilis 278
magellanicus 278
margaritaceus 278
miliaris 278
norvegicus 278
Edwards, Chas. L., on Tetraodontidæ 230
Hy 415
Egretta ruficollis 169
Eider, King 659
Pacific 659
Eigenmann, Carl H., on Eleotridinæ 49
Gobiidæ **477**
Elacate canada 27, 572
Elacatidæ 572
Elagatis pinnulatus 576
Elaine martinica **616**
Elaphis deppei 186
Elapidæ of Mexico 190
Elaps apiatus 190
bernadi 190
nigrocinctus 190
Elasmobranchs, development of fins of 74
Eleotridinæ **477**, 482
paper on 49
Eleotris **479**, 482, 43, 542
æquidens 483, 516
amblyopsis 483, 516, 595
belizana 483, 516, 595
(Culius) belizana 483
grandisquama, type of **544**
guavina 483
gundlachi 482
gyrinus 49, 483, 595
latifrons 483
longiceps 482
mugiloides 482
omocyaneus 482
picta 483
pisonis 49, **479**, 483, 516, 595
seminuda 484
sima 482
types of **544**
somnolentus 482
Eleutheractis coriaceus 581
Ellipesurus 557
spinicauda 557
Elopidæ 561
of Havana 33
Elops saurus 26, 33, 561
Emballonuridæ of Mexico 127
Emberiza ciris 142
Embernagra brunneinucha 141
Emblemaria nivipes 608
Embryology in classification 75
of fishes 81
Emeric, H. V 508
Emerton, J. H 324
Empidonax fulvifrons rubicundus **154**
rubicundus 154
Emydidæ of Mexico 197
Enchelycore nigrican 565
Enchelyopus 542
Encionetta stelleri 655
Enclimatoceras (Nautilus) ubrichi 251
Encope californica 285
emarginata 285
grandis 285
michelini 286
micropora 286
Engelhard, Prof. C 449
Engraulididæ of Havana 33
Engraulis argyrophanus, types of **525**
chœrostomus 562
Engyptila albifrons 175
wellsi **624**
Enicognathus annulatus 188
Enicuri 644
Enicuridæ 644
Enicurus 644
Enjambro—Enneacentrus guttatus 40
sp 41
Enneacentrus 581
dubius 581
fulvus 41, 581
punctatus 41, 581
ruber 41, 581
guttatus 40, 581
coronatus 41, 581
punctulatus 41
tæniops 581
Entomacrodus 599
Ephialtes elegans 639, 640
glabripes 640
Ephippidæ 593
of Havana 48
Ephippion 241, 243
Epinephelus 32
adscensionis 581
apua 40
ascensionis 40
catus 40, 581
drummond-hayi 474, 581
flavolimbatus 475, 580
lunulatus 40
morio 27, 40, 466, 470, 580
mystacinus 40, 580
nigritus 580
niveatus **475**, 580
notes on 39
punctatus 40
review of **40**
striatus 40, 580
Epinnula magistralis 574

Page.
Epipedorhynchus 233
Epipédorhynque 243
Eques acuminatus 587
lanceolatus 586
pulcher 587
punctatus 43, 586
Erethrizon dorsatus epixanthus **222**
Ereunetes pusillus **628**
Ergaticus ruber 138
Ericymba buccata 462
Erimyzon sucetta 462
Erismatura rubida 174, **630**
Erithacus komadori 644
Ermine 221
Erotelis **479**, 482, 484
smaragdus 49, 484, 517, 595
valenciennesi 49, 484, 595
Erythra 405
Erythrichthys vittatus 585
Erythrinidæ 560
Erythrinus cinereus 560
Etythrolamprus fissidens 187
imperialis 187
proterops 187
punctigularis 188
Escambia River fishes **462**
Escolar Chino—Verilus sordidus 42
Escribano—Hemirhamphus pleei 35
sp 35
Eslabon cillo—Diploglossus sp 195
Oligosoma sp 196
Esmeralda—Gobius oceanicus 49
Esox 339, **340**
belone 339, 340, 356
var. marinus 351
brasiliensis **347**, 352, 353, 529, 568
imperialis 355, 356, 568
longirostris 351
lucius 340
reticulatus 463
synodus 526
vermiculatus 12
zonatus 527
Etelis oculatus 42, 583
Etheostoma 17
asprigene 16
barratti 10
beani 464
cœruleum 12, **19**
spectabile 5, 13, 19
flabellare 465
fusiforme **9**, **10**, 13, 17
histrio **12**
jessiæ **16**
lepidum **19**, 21, 23, 24
nigrofasciatum 464
saxatile 13
squamiceps **464**
whipplei **9**, **13**
zonale 5, 6
arcansanum 13
new subspecies **5**
Etheostomatinæ, distribution of 24
Etheostomoids, favorite locality for 10

Page.
Etmopterus spinax 555
Etropus crossotus **29**, 476, 608
microstomus **29**
rimosus 602
Eublepharidæ 191
Eucinostomus gulula 44, 589
productus 45, 589
pseudogula 45
zebra 44
Euclypeastridæ 280
Euctenogobius 487, 595
lyricus 496
sagittula 497
strigatus 595
Eucyclogobius 501, **502**
newberryi 503
Euetheia pusilla 142
Euethia bicolor **614**
Eugenes fulgens 157
Eulamia 555
longimana 555
nicaraguensis 556
obtusa 555
Eulampis holosericeus **619**
Euleptorhamphus longirostris 569
velox 569
Euleucophæus 415
Eumeces furcirostris 196
Euphonia elegantissima 140
flavifrons **613**
Eupleura 302
Eureka Springs, fishes taken near 2
Euschistodus concolor 593
Eutæna proxima 186
pulchrilatus 186
scalaris 186
sirtalis 186
Eutainia proxima 186
sirtalis 186
Euthlypis lacrymosa 138
Euthria 302
Euthynnus alliteratus 574
pelamys 574
Evechinus chloroticus 280
Evermann, B. W 25, 473
on Gerridæ 44
on new fishes 466
Evolution in species-making 78
Evorthodus **479**, **486**
breviceps **486**, 517, 595
catulus 494
Evotomys rutilus Gapperi 223
Evoxymetopon tæniatus 573
Exocœtus 339
albidactylus 528, 569
bahiensis 528, 569
cyanopterus 569
type of **528**
exiliens 569
furcatus **225**, 229, 569
gibbifrons, type of **528**
heterurus 225, 527, 528, 569
lamelliter 569
lineatus, type of **528**
maculipinnis **225**

Page.
Exocœtus melanurus, type of **527**
nigricans 569
noveboracensis 225
rondeleti 569
rufipinnis 569
scylla 569
vermiculatus 569
vinciguerræ 569
volador 569
volitans **527**, 569
Exogyra, aquila 251
arietina 251
costata 251
var. fluminis 251
læviuscula 251
walkeri 251

F.

Fabia, chilensis 273
Falco, anthracinus 167
cachinnans 168
cheriway 168
columbarius 168, **622**
hudsonius 166
ornatus 167
pensylvanicus 167
plumbeus 168
sparverius 168
velox 168
Falconidæ of Grenada 622
of Mexico 166
Felidæ of Mexico 128
Felis rufa 128
ruffa 128
tigrina 128
Ferrari-Perez, Fernando, on Mexican animals **125**
on Mexican birds **130**
Mexican mammals **127**
Mexican reptiles 182
Fewkes, J. Walter 239
Fiber zibethicus 223
Fibularia australis 257
volva 280
Fibularina 280
Fiedler, K. G 83
on fulgurites 83, 90, 91
lightning strokes 90
Fierasfer dubius 600
Fierasferidæ 600
Figrillo—Felis tigrina 128
Filomena—Ampelis sp 138
Fin-rays, development of, in classification 82
dichotomy of 75
in classification of fishes 71, 77, 78
segmentation of 75
Fins, adipose 72
translocation of 76
Fischer, Dr. Paul **206**
Fish, Fanny E., found Rhinoptera 220
Fisher, Wm. J 222, 297
Fishes classified by development of fin-rays 82
conditions favorable to 25

Page.
Fishes, Cuvier & Valenciennes types of **525**
distribution of fresh-water 24
from Arkansas 1
Escambia River **462**
Indian Territory 1
Texas 1
genesis of species in 73
genetic relationships of 77
new, from Gulf of Mexico **466**
of Beaufort **25**
Texas rivers scarce 25
West Indies **554**
range of variation in 34
trinomial nomenclature for 24
Fistularia serrata 570
tabaccaria 30, 35, 570
Fistulariidæ 570
of Havana 35
Florida fishes, notes on 225
Flycatcher 617
Fork-tail 619
Fodiator acutus 569
Forbes 303
Prof. S. A 2
Fordice, Morton W., on Belonidæ **339**
on Eleotridinæ 49
Formicariidæ of Mexico 156
Forrer, A., Echini from 256
Fort Smith, fishes taken near 6
Fou (Sula sp.) 630
Fox, Cross 221
Fraile—Cyanocitta sp 152
Fratercula corniculata 655, 656
Fregata aquila 169, **630**, 657
minor 655, 656
Fregáte (Fregata aquila) 630
Fregatidæ of Grenada 630
Mexico 169
Friele 297, 301, 304, 306, 307
Fringilla cinerea 145
lincolnii 144
mexicana 149
rubra 140
socialis 144
Fringillidæ of Grenada 614
Mexico 141
Fukushi, Mr 120
collected Dryobates 115
Fulgurites, analysis of 86
bibliography of 90
described 87
form of 89
Merrill on 83
papers on 83
sections of 88
wing-like projections of 88
Fuligula affinis 174
Fulmarus glacialis glupischa 655, 656
rodgersii 656
Fulica **395, 408**
æthiops 408
americana 177, **629**
ardesiacea 408
aterrima 408
atra **408**

Page.
Fulica atra japonica 408
atrata 408
chinensis 405
chloropus 406
cinerea 404
cristata 408
fuliginosa 408
fusca 406
gigas 408
leucoryx 408
platyuros 408
pullata 408
Fundulus bermudæ 564
catenatus 5, 12
cingulatus **463**
type of **527**
fonticola 564
type of **526**
heteroclitus 26
majalis 26
rhizophoræ 564
zonatus 527
Fur seal 222
Fusus arcticus 215
cancellatus 213
cretaceus 215
deforme 304
(Euthria) conulus 302
oregonensis 212
(Pyrolofusus) deformis 304
spitzbergensis 205
terebralis 215
turtoni 304

G.

Gadidæ 601, 608
Gadow 201
Dr 376, 385, 388
Galambas—Tantalus sp 171
Gallantina—Cassiculus sp 149
Galapagos Islands, oyster-catcher from 325
Galeichthys albicans 559
arenatus 558
assimilis 559
barbus 559
blochi 559
dieperinki? 559
dubius 559
emphysetus 559
felis 26, 559
fissus 558
flavescens 559
grandicassis 559
gronovii 559
herzbergi 559
laticeps 558
luniscutis 559
melanopus 558
mesops 559
nuchalis 559
parkeri 559
parræ 559
pasany 559
phrygiatus 559
proops 559

Page.
Galeichthys rugispinis 559
stricticassis 559
surinamensis 559
temminckianus 559
Galeocerdo maculatus 555
tigrinus 555
Galeorhinidæ 555
of Havana 32
Galeus canis 32, 555
Gallareta de pico blanco 177
Gallicrex **395, 404**
cinerea **404**
cristata 404
cristatus 404
Gallina de Mostezuma 177
soldado 179
Gallinago delicata 178, **628**
Gallinita de ciénega 177
Gallinula **395, 406**
bailloni 396
chloropus **406**, 408
cristata 404
erythrina 405
erythrothorax 398
erythrura 405
galeata **629**
gularis 404
javanica 405
lugubris 404
nævia 404
olivacea 405
parvifrons 407
phænicura 405
phænicurus 405
plumbea 404
porphyrioides 404
pygmæa 397
rubiginosa 398
stellaris 396
Gallinule, Purple 629
Gallinules of Japan 395
Gallinulopha 404
Gallus marinus f. Faber indicus 37
Gambel, Dr. William 409, 410
Gambusia 17
development of 81
gracilis 22
humilis 21
melapleura 564
patruelis ... 8, 11, 14, 16, 17, 19, 21, 22, 24, 26
var **19**
var. humilis **22**
punctata 34, 564
puncticulata 564
Gannet, Blue-faced 631
Garden, Dr 60
Gar-fish, common 351
Garman, Samuel 354
Garrapatero—Crotophaga sp 162
Garrulus luxuosus 153
Garza azul—Ardea sp 169, 170
blanca chica 169
grande 169
pinta—Tigrisoma sp 170
Garzon—Tantalus sp 171

Page.
Gasterosteus, development of spines in.... 71
ovatus ?..... 575
Gastrophysus..... 231
lævigatus..... 232
turgidus..... 238
Gastropoda, Labrador marine..... 203
Gastrostomus..... 81
Gato montes de cola corta—Lynx sp..... 128
Gaulin, white..... 626
Gavilan, Asturina sp..... 166
de parvada..... 167
—Ictinia sp..... 168
negro..... 167
tonto aplomado..... 166
tonto café..... 166
Gaviota—Larus sp..... 179
Sterna sp..... 179
Gecinetes..... 104
Gecinus..... 104
canus..... 106
Gempylus sepens..... 573
Geneion..... 233, 243
Geographical and Exploring Commission of Mexico, animals taken by..... 125
Geomyidæ of Mexico..... 129
Geomys mexicanus..... 129
sp. ?..... 129
Genyatremus cavifrons..... 584
? Genyoroge canina..... 41
canina..... 582
Geococcyx affinis..... 162
Geothlypis trichas..... 137
occidentalis..... 137
Geotrygon montana..... **625**
Gerres aprion..... 589
brasilianus..... 44, 589
cinereus..... 44, 589
dowi..... 45, 55, 589
gracilis..... 45, 55, 589
gula..... 28, 44, 589
jonesi..... 45, 589
lefroyi..... 45, 589
olisthostoma..... 44, 55, 589
patao..... 44, 589
plumieri..... 44, 589
pseudogula..... 45, 589
rhombeus..... **44**, 589
zebra..... 589
Gerridæ..... 589
of Havana..... 44
paper on..... 44
Gerrhonotus (Barissia) imbricatus..... 194
imbricatus..... 194
liocephalus..... 195
Gervillia recta..... 251
Gilbert, Charles H... 26, 38, 60, 62, 63, 64, 66, 68, 230, 236, 244, 327, 355, 497, 498, 505, 509
on Beaufort fishes..... 25
southwestern fishes. 1
paper by..... 41
took Ethcostoma whipplei..... 9
Dr. L..... 83
on fulgurites..... 90

Page.
Gill, Prof. T. N..... 49, 57, 62, 82, 229, 230, 242, 243 244, 245, 477, 486, 494, 495, 490, 502
Gillia..... 509, 510
Gillichthys..... 477, 480, **509**
mirabilis..... 509, **510**, 518
skeleton of..... 514
Ginglymostoma cirratum..... 32, 555
fulvum..... 555
Girardinus..... 563
Giton fasciatus..... 565
Glaleichthys variolosus..... 558
Glaucidium phalænoides..... **164**
Glaucionetta clangula..... 655
glaucion..... 655
Glaucis hirsutus..... **619**
Gloger..... 365, 367
Gloveria..... 414, 415
Glyphidodon declivifrons..... 593
rudis..... 593
saxatilis..... 593
taurus..... 593
Gmelin..... 294
Gnatholepis..... 487
Gnathypops macrops..... 598
mapillosus..... 598
mystacinus..... 229, 608
Gobiesocidæ..... 597
Gobies, list of species of..... **515**
Gobiesox carneus..... 597
cephalus..... 597
cerasinus..... 597
fasciatus..... 597
nigripinnis..... 597
nudus ?..... 597
punctulatus..... 597
rubiginosus..... 597
rupestris..... 597
virgatulus..... 597
Gobiichthys..... 487
Gobiidæ..... 594, 608
analysis of genera of..... **477**
of Havana..... 48
review of..... **477**
skeletons of..... 513
Gobiinæ..... 477, **479**
Gobileptes..... 487, 496, 595
Gobioclinus gobio..... 599
Gobioides..... **481**, **512**
barreto..... 512, 513, 596
broussoneti..... **512**, 513, 518, 544, 596
peruanus..... 512, 513
Gobioidinæ..... **481**
Gobiomorphus..... 483
Gobiomorus..... **478**, **482**
dormitator..... 48
dormitor..... 482, 516, 594
lateralis..... 482, 516
longiceps..... 482, 516, 594
Gobionellus..... 487, 496
bacalaus..... 49
costalesi..... 497
encæomus..... **28**, 496
hastatus..... 498, 596
lanceolatus..... 49

Page.
Gobionellus oceanicus 497
smaragdus 497
stigmaticus **28**, 496
Gobiosoma **480**, 488, **506**, 509
alepidotum 508
analysis of species of **506**
bosci 28, 506, **507**, **508**, 517
ceuthæcum 606
ceuthœcum **506**, **508**, 517
histrio **506**, **508**, 517
ios **507**, **509**, 517
longipinne **507**, 509, 517
molestum **506**, **508**, 517
skeleton of 514
multifasciatum **507**, **509**, 517, 596
zosterurum **507**, **509**, 517
Gobio vernalis 8
Gobius 477, **480**, **487**, 488, 494, 498, 514
alepidotus 506, 508
amorea 483
analysis of species of **488**
bacalaus 498, 596
banana 49, 500, 595
type of **543**
bishopi 595
boleosoma 488, **490**, **495**, 517
skeleton of 513
brasiliensis? 512, 513, 596
type of **544**
brunneus **499**, 595
bosci 506, 508
carolinensis 494
catulus 494
crista—gall 486, 487
cyprinoides 487
(Deltentosteus) quadrimaculatus 488
dolichocephalus 49, 501, 595
doubtful species of 499
emblematicus **50**, 505
encæomus 49, 490, 491, **491**, **496**, 517
fasciatus 488, **495**, 517, 595
flavus 500
types of **543**
glaucofrænum **489**, **494**, 517
gracilis 501, 502
gulosus 505
jozo 488
kraussi **492**, 497, 517, 595
lacertus 494, 499, 595
lanceolatus 498, 596
lepidus 501, 502
lineatus **499**, 595
lyricus **491**, **496**, 517, 596
mapo 49, 494, 595
martinicus 49, 501, 595
mertensi 488
mexicanus 501
mystacinus 510
newberrii 503
nicholsi **489**, 494, 517
niger 487, 488, 494
oblongus 512
oceanicus 49, 488, **493**, 506, **497**, 501, 517
skeleton of 514
ophiocephalus 488
Page.
Gobius paganellus 484
paradoxus **493**, **498**, 517
pisonis 483
plumieri 844
poeyi **492**, **497**, 516, 595
(Pomatoschistus) minutus 488
quadrimaculatus 488
sagittula **492**, **497**, 517
seminudus **493**, **498**, 517
shufeldti **490**, 517
new name **495**
smaragdus **49**, **492**, **497**, 517, 596
soporator 49, 487, **488**, **493**, 499, 501, 517, 595
skeleton of 513
stigmaticus **49**, **491**, **496**, 517, 595
stigmaturus **489**, **495**, 517
strigatus 595
taiasica 490, 500, 501
thalassinus **50**, **505**
viridipallidus 508
würdemanni? 495, 496, 497
God Bird 611
Godwit, Marbled 628
Gokstad ship **455**
antiquities 457
how propelled 456
mast 456
oars 456
planking 456
rudder 457
tent shelter 457
Golondrina comun 139
de mar 179
vencejo 139
Gonatus amœnus 217
Goniobasis macilenta 253
subtortuosa 253
Goniocidaridæ 260
Goniocidaris 263
canaliculata 263
Gonioplectrus hispanus 580
Gonostoma yatesii 254
Goode, G. Brown 37, 40, 53, 60, 68, 238, 355
Goose, Pink-footed 658
Gorrion de cabeza colorada—Carpodacus sp. 149
moradito—Passerina sp 142
pintado 149
trigueno—Poocætes sp 142
Goss 38, 529
Gould, Dr 117, 118, 210, 213, 214, 294, 298, 650
J 524
Gramma loreto 582
Grammateus humilis? 585
Grammicolepididæ 576
Grammicolepis 468
brachiusculus 576
Grammistes trivittatus? 584
Grand—gorgé (Pelican) 630
Grant—Ogilvie 485
Gray 111, 303
Dr. J. E 409, 410
G. R 387
Grayson, Col. A. J 166, 172, 173
Grebe, American red-necked 633

Page.
Grebes 658
Gree-gree (Buteo sp.) 622
Green, R. L. 576
Grebnitzki, Nicholas..210, 211, 212, 214, 215, 216, 219
mollusks from **209**
Grenada, birds of **609**
Grieve, Bastard 611
Yellow-eye 610
Grote, A. R. 414, 416, 420, 428
Gronow 542
Gryphæa pitcheri 251
vesicularis 251
Guacamaia 543
Scarus guacamaia 48
Guadalupe, Señor Félipe 32
Guaguanche Pelon—aphyræna sp 36
Guajacon—Gambusia punctata 34
Guajolotito—Setophaga sp 137
Guara alba 171
Guasa—Promicrops itaiara 40
Guaseta—Alphestes afer 40
Guativere Amarilla—Enneacentrus sp 41
Colorada—Enneacentrus sp 41
Enneacentrus sp 41
Guavina **479**, 482, 483
Eleotris pisonis 49
Gobiomorus dormitator 48
guavina 48, 483, 516
Guavina guavina 48
guavine 594
Guichenot 47, 227
Guillemot, Sooty 658
Güillo pico gordo—Pheucticus sp 141
Guiraca cœrulea 141
melanocephala 141
Gulf of Mexico, new fishes from **466**
Gull, Laughing 631
Gulls 660
Gumbel 83
on fulgurites 85, 91
Günther Dr. A **32**, 33, 34, 54, 57, 64, 66, 68, 74, 229, 230, 231, 235, 240, 246, 349, 352, 353, 354, 355, 356, 360, 477, 487, 498, 501, 510, 526, 530, 535, 560
Güntheria 57
Gymnelcotris **479**, 482, 484
seminuda 484, 498, 517
Gymnothorax 565
erebus 565
infernalis 565
picturatus 34, 566
rostratus 34, 566
scriptus 566
versipunctatus ? 34, 566
Gymnotidæ 565
Gypagus, papa 160

H.

Habia melanocephala 141
Hadropterus 12
aspro 9, 13
evides 9, 13
ouachitæ 13
phoxocephalus 9
scierus **13**
serrula 17, 19, 23, 24

Page.
Hadropterus scierus var. serrula, new variety **16**
Hadrostomus aglaiæ 156
Hæmatopus galapagensis **325**
description of **325**
leucopus **325**
palliatus **325**
Hæmophila melanotis 145
ruficanda 145, 146
Hæmulon 32, 537
acutum 42, 535, 536, 537, 584
albidum 42, 536
album 42
arara 42
aurolineatum 42, 537, 584
bonariense 535, **536**, 537, 584
canna **535**, 537
carbonarium 42, 536, 537, 584
caudimacula, type of **535**
chromis **536**
chrysargyreum 537, 584
type of **536**
continuum 584
dorsale 42, 584
flavoguttatum 537
flavolineatum 42, 537, 584
fremebundum 536, 537, 584
gibbosum 42, 537, 584
hians **537**, 584
jeniguano 42, 584
labridum 584
luteum 42
macrostoma **536**, 537, 584
maculicauda 537
melanurum 42, 537, 584
multilineatum 42
notes on 41
parra 535, 537, 584
parræ 535, 536, 537
plumieri 42, 537, 584
quadrilineatum 537, 584
rimator 537, 584
schranki 535, 537
sciurus 42, 537, 584
scudderi 537
serratum 42
sexfasciatum 537
steindachneri 535, 537
striatum 537
tæniatum 42, 536, 584
trivittatum 537
xanthopteron 536
Hake, common 322
Halcon de cola corta 168
larga 168
pescador 167
pinto 167
de cola larga 166
pollero—Rupornis sp 167
Halichœres 57, 62
californicus 65, 70
cœruleovittatus 57
Halichœrus 62
Halieutichthys aculeatus 603
reticulatus 476, 603

Page.
Haliperca jacome 39
Halisarca 302
Haloconcha, new name **212**
reflexa 218
Halocypselus evolans 26, 569
Halocyptena microsoma 656
Hanley 297
Hapsidophrys mexicanus 185
Harengula 33, 561
clupeola 33, 561
humeralis 33
jaguana 33, 561
latulus? 561
pensacolæ **33**, 561
Hare, Arctic 222
Hargitt, Mr 120, 121, 124
Harpe 589
Harporhynchus curvirostris **132**
Harris 423, 427, 430
Harting 83
analyzed fulgurites 86
on fulgurites 87, 91
Hasselquist 241, 242
Havana fishes, list of **31**
Spanish names of 31
Hawk, Black 249
Chicken 622
Fish 622
Mountain 622
Pigeon 622
Sparrow 622
Hay, Prof. O. P 49, 527
Healy, Captain 205
Hedymeles melanocephalus 141
Heliases multilineata 503
Heliotropis **304**
Helix (Aglaia) fidelis 254
cælata 461
chersina 202
Duranti 460
egena 202
fabricii 202, 203
floccula **209**
(Monodon) Dallii 254
(Patula) perspectiva 254
pauper 209
ruderata 209
(Trichia) hispida 461
Helleristninger 444
Hemiaster cavernosus 289
Mentzi 289
Hemicaranx 575
Hemigobius 487
Hemigrammus 500
Hemileuca 415
Hemileucini 414
Hemilophus 123
Hemiprocne zonaris 620
Hemphill, Henry, sent Echini 256
Hemirhamphus balao 529, 568
brasiliensis 529, 568
browni 568
type of **529**
europæus 340
fasciatus 568

Page.
Hemirhamphus filamentosus 35, 568
macrochirus 529
obtusus 340
pleei 35, 529, 568
poeyi 35, 568
richardi 568
roberti 26
unifasciatus 35, 568
Hemirhombus 52
æthalion 602
aramaca? 602
fimbriatus 602
fuscus 53, 602
ovalis 53
Hemistoma 591
Hemitautoga 57
annulata cyclura 188
Henicognathus annulatus 188
Henicorhina leucosticta 136
Henicuri 644
Hermann 382, 397
Heron, night 627
Heros 48, 592
Herpetodryas margaritiferus 185
Herpetotheres cachinnans 168
Heterandria guppii .....
metallica 563
ommata 527
uninotata 563
versicolor 563
Heterocentrotus mammillatus 257, 269
trigonarius 569
Hexagrammus asper 509
Hexanchidæ 554
Hexanchus griseus 554
Hexanematichthys 559
Hiatula onitis 28
Hi-gara (Parus sp) 377
Hi-kuina (Porzana sp) 398
Hill, R. T 250
Himantodes gemmistratus 185
Himantopus mexicanus 178
Hime-Kuina (Porzana sp) 396
Hippocampus, development of 81
fascicularis 570
hudsonius 30
marginalis 570
punctulatus **30**, 35, 570
stylifer 570
Hipponoë depressa 279
esculenta 279, 280
variegata 257, 280
Hirundinidæ of Grenada 612
Mexico 139
Hirundo americana 139
erythrogastra **612**
lunifrons 139
pyrrhonota **139**
Histrionicus histrionicus 655
Hoffman, on Acanthuridæ 48
Hoitztlacuatzin—Synetheres sp 130
Holacanthus 233
ciliaris 593
leionothos 240, 247
melanothos 232, 247

Page.
Holacanthus tricolor ... 48, 593
Hollard ... 230, 243, 244
Hollardia hollardi ... 604
Holocentridæ ... 578
of Havana ... 38
Holocentrum ascensione ... **38**
brachypterum ... 578
longipinne ... 578
marianus ... 578
matajuelo ... 38, 578
pentacanthum ... 578
perlatum (?) ... 578
riparium (?) ... 578
rostratum ... 578
rufum ... 578
sogo ... 578
Holocentrus ascensionis ... 578
coruscus ... 578
productus ... 578
rostratus ... 578
sancti-pauli ... 578
siccifer ... 578
vexillarius ... 578
Holocephali, actinotrichia of ... 72
development of fins of ... 74
fin-rays of ... 71
Hologymnosus ... 56
Holostei, radial development in ... 74, 75
Homolampas fragilis ... 287
Hoplosternum stevardi ... 559
Hoplunnis schmidti ... 567
Hound-fish ... 353
Howard & Sons, cinchona barks from ... 438
Hughes, Eliz. G., on American Julidinæ ... **56**
Prionotus ... **327**
Huistlacuachi—Synetheres sp ... 130
Hulst, George D ... 431
Hume ... 400, 635
Humming-bird, Brown ... 619
Crested ... 620
Green ... 619
Huron—spermophilus sp ... 129
Hyalina (?) ... 219
Duranti ... 460
floccula ... 219
pauper ... 219
radiatula ... 217
ruderata ... 219
Hyalophora ... 423, 427, 430
Hybognathus meeki ... 2
nuchalis ... 7, 11, **14**, 15, 17
nubila ... **2**
Hybopsis æstivalis ... **8**, 11, 14, 21
marconis, new variety ... **22**
var. marconis ... 24
amblops ... 4, 8
dissimilis ... 4, 11
hyostomus ... 8, **22**
kentuckiensis ... 4
storerianus ... 8, 14
Hydrargyra luciæ ... 527
Hydrochelidon nigra surinamensis ... 179
Hydrocichla ruficapilla ... 644
Hodrogallina ... 406
Hygrogonus ... 48, 592
Hydroides dianthus ... **549**, **550**
protulicola, new species ... **550**
spongicola, new species ... **549**
Hyla bandini ... 199
gracilipes ... 198
nigropunctata ... 198
Hylidæ of Mexico ... 198
Hylodes rhodopis ... 187
Hyodon alosoides ... 14
tergisus ... 11
Hyperchiria ... 414, **428**, **432**
io ... **433**, **434**
var. lilith ... **433**, **434**
pamina ... **433**, **435**
var. aurosea ... **433**, **435**, **436**
zelleri ... **433**, **434**
zephyria ... **433**, **436**
Hypleurochilus ... 51
geminatus ... **28**, **29**
multifilis ... **28**, **29**
Hypnodes ... 404
Hypogymnogobius ... 487
Hypopicus ... 108
Hypoplectrus aberrans ... 579
accensus ... 579
affinis ? ... 580
bovinus ... 39, 579
chlorurus ... 580
crocotus ... 580
gemma ... 607
gummigutta ... 579
guttavarius ... 579
indigo ... **39**, 579
maculiferus ... 579
nigricans ... 579
pinnivarius ... 579
puella ... 579
Hyporhamphus ... 568
macrochirus ? ... 368
tricuspidatus ... 568
Hypoprion ... 556
Hypostomus ... 560
robini ... 560
Hypotænidia ... 402
jouyi ... 362
Hypsipetes amaurotis ... 642, 643
measurements of ... **643**
pryeri, measurements of ... **643**
new species ... **642**
squamiceps ... 642
measurements of ... **643**
Hystricidæ from Alaska ... 222
of Mexico ... 130
Hystrix mexicana ... 130

J.

Ianthia cyanura ... 646
Ibis blanco ... 171
Ichthyapus acutirostris ... 566
Ichthycallus ... 57, 66
bivittatus ... 63
dimidiatus ... 61
Icoturus komadori ... 644, **645**
namiyei ... 644, 645
new species ... **644**

Page.
Icoturus, new genus, Timaliidæ **643**
Ictalurus punctatus 2, 7, 10, 14, 18, 20
Icteria virens 138
viridis 138
Icteridæ of Grenada 615
Mexico 149
Icterus auduboni 150
bullockii 150
cucullatus 150
galbula 149
gularis 150
melanicterus 149
parisorum 150
pustulatus **150**
spurius 150
wagleri 150
xanthocephalus 152
Ictinia plumbea 168
Ictiobus bubalus 14
carpio **20**
tumidus 20
velifer 7, 10, 14, 18, 20
var **18**
Ictiologia Cubana consulted 31
Iguana—Ctenosaura sp 192
real 192
tuberculata 192
verde 192
Ilama comun—Pipilo sp 148
Indiana University, fishes from 225
sent to 1
Julidinæ described 56
West Indian fishes in 32
Indian Territory fishes collected 1
Inermia 585
Inoceramus deformis 251
umbonatus 251
Ioglossus **477**, **481**
calliurus **481**, 516, 608
Ionornis martinica **629**
Isabelita—Chætodon capistratus 48
Isesthes 50, 51
punctatus 28
Isogomphodon 556
Isopisthus parvipinnis 588
Istiophorus americanus 573
Isurus dekayi 556
Iuanito pinto elote 170
Iunx 102
Iusto juez—Myiozetetes sp 154
Iyngipicus 120
kisuki 120, 120
seebohmi 123
Iynx 102

J.

Jaboncillo—Rhypticus saponaceus 41
Jack—Esox reticulatus 463
Jacome—Serranus tabacarius 39
Jaculus 410
Jallao Hæmulon gibbosum 42
Japan birds from Liu Kiu Islands **634**
local races of birds in 100
new mole from 97
Paridæ of 374

Page.
Japan, proposed ornithological hand-book of 99
Review of birds of **374**
Tit 375
Water-birds of **652**
woodpeckers from 115
Japanese birds, review of **99**
Jay, Dr 298
Jeffreys 217, 297
Jeniguana—Hæmulon melanurum 42
Jeniguano—Hæmulon aurolineatum 42
Jenkins, Oliver P 28
collected Beaufort fishes 25, 26
Jenyns 236
Jerdon 363, 403
Jiguagua—Caranx hippos 36
Jilguero negro copeton—Phainopepla sp 139
Jocú—Lutjanus jocú 41
Johnius batabanus 43
guttatus 40
Jones, Dr. William H 325, 326
echini from 257
J. Matthew 355
Jordan, D. S 26, 40, 47, 60, 62, 63, 229, 236, 237, 354, 356, 463, 465, 472, 495, 497, 508, 513
collected Escambia River fishes 462
Echini from 256
on American Julidinæ 56
Beaufort fishes 25
Belonidæ **339**
Cuban scaroids 45
Florida fishes 225
Gobiidæ **477**
Havana fishes 31
new fishes **466**
Prionotus **327**
southwestern fishes 1
Tetraodontidæ 230
typical fishes **525**
West Indian fishes **554**
papers by 41
Jordan & Gilbert 243
Jorobado—Vomer setipinnis 37
Joturo—Joturus pichardi 35
Joturus pichardi **35**, **36**, 571
stipes **35**, **36**, 571
Jouy, P. L 121, 362, 376, 378, 379, 380, 385, 399, 405, 643, 658
collected Dryobates 110, 112, 113
Echini from 257
Japanese birds of 99, 100
sent Picus 105, 106
Juan de á pié 107
Julidinæ, analysis of genera of 56
large-scaled 67
list of 69
nominal species of 70
review of American **56**
Julis 56, 57, 66, 67
bifasciatus 68
caudalis 64, 70
cinctus 45, 61, 70
crotaphus 45, 59, 60, 64, 65, 70, **540**
cyanostigma 59, 70
detersor 68, 70, **590**

Page.
Julis detersor, types of **540**
dimidiatus 61, 70
garnoti 61, 70
types of **541**
geoffroyi 57
gillianus 68, 70, 590
(Halichœres) annularis 57
humeralis 63, 64, 70
internasalis 61, 70
lucasanus 70
maculipinna 62, 70
melanochir 68, 69, 70
modestus 65, 70
nitida 68, 70
nitidissima 68, 70, 590
opalina 59, 70
patatus 60, 70
pictus 64, 70
principis 60, 70
psittaculus 63, **540**
ruptus 45, 61, 70
semicinctus 60, 70
Jumala 304
Junco cinereus **145**
Junx 102
Jurel—Caranx sexfasciatus 36
Jynginæ of Japan **102**
Jynx 102
arborea 102
major 103
punctata 102
torquilla **102**
forma meridionalis 103
septemtrionalis 103
measurements of **104**
meridionalis 103

K.

Kalinowski, I 107
Picus from 108
Kamtschatka, Japan birds absent in 654
Kascamiol 629
"Keiper" 443
Kelp-fish—Platyglossus semicinctus 60
Keulemann 371
Killdeer 627
Ki-mawari (Sitta sp.) 390, 392
Kingfisher, Belted 620
King's River fishes taken 2
Kittiwake, Pacific 657
Red-legged 658
Klein 243
Kobelt, Dr 216, 302
Ko-gara (Parus sp.) 378, 381
Ko-gera—Yungipicus seebohmi 123
Krause, Dr. A 298, 299, **301**, 306
Kuina (Rallus sp.) 402
Kuma-gera—Dryocopus martius 124
Kyallie (Ardea sp.) 626
Kyphosidæ 585
Kyphosus sectatrix 28, 585, 593

L.

Labidesthes sicculus 5, 8, 12
Labrador mollusks **209**

Page.
Labridæ 589, 607
of Havana 45
some genera of, described 56
Labrisomus biguttatus 599
buccifer 599
delalandi 599
gilli 599
herminier 599
microlepedotus 599
nuchipinnis 599
ocellatus 599
Labrus 542
bifasciatus 68, 70
var. torquatus 68
bivittatus 63, 64, 70
brasiliensis 59, 60, 70
capite obtuso 68
centiquadrus 57
falcatus 575
julis 67
ornatus 68, 70
psittaculus 63, 64, 70
radiatus 59, 60, 63, 70
Lacépède 54, 233, 238, 356
Lacerta orbicularis 194
6-lineata 195
Lacertilia of Mexico 191
Lachnolæmus falcatus 589
maximus 45
suillus 589
Lachnolaimus maximus 589
Lactophrys undulatus? 604
Lacuna 212
vincta 209, 212, 218
Lacunaria 212
Lacunella 212
Læmanctus longipes 192
serratus 192
Laganidæ 282
Laganum Bonani 283
depressum 282
Putnami 257, 282
Lagartija—Anolis sp 191
Barissia sp 194
Cnemidophorus sp 195
de cola larga 191, 192
de tierra 193, 194
—Gerrhonotus sp 195
rayada 191, 192
—Sceloporus sp 193, 194
—Uta sp 192
Lagarto—Crocodilus sp 197
—Synodus spixianus 34
Lagocephalus **230, 231**, 233, 242, 243, 247
lævigatus **231, 232**, 247, 605
lagocephalus 241
lunaris 231
Lagodon rhomboides 585
Lagomyidæ from Alaska 222
Lagomys princeps **222**
Lamarck 213
Lamnidæ 556
Lampasas River fishes taken 1
Lampriididæ 577
Lampris guttatus 577

Page.
Lampropeltis polyzonus 187
Lampropsar dives 152
La murène myre 474
Land shell, new **460**
Landiidæ of Mexico 138
Lanius biarmicus 386
doliatus 156
excubitorides 138
ludovicianus 138
excubitorides **138**
Laridæ of Grenada 631
Mexico 179
Larimus 43
batabanus **43**, 587
breviceps 43, 587
stahli 587
Larus affinis 655
atricilla 179, **631**
brunnicephalus 656
cachinnans 655, 656
californicus 179, 656, 657
canus 655
crassirostris 655, 656
delawarensis 657
franklinii 179
glaucescens 655, 656
glaucus 655
heermanni 656
kamtschatchensis 655, 656
leucopterus 655
marinus 657
melanurus 655
nelsoni 656
niveus 655, 657
occidentalis 656
rudibundus 655, 660
saundersi 656
schistisagus 655, 656, 657
Latebrus 586
Latham 294, 380, 381
Lawrence, George N. 95, 146, 173, 614, 615, 616, 618, 619, 629, 622, 623, 624, 625, 627, 628, 629, 630, 633
edited Grenada birds. **609**
Leal, Manuel F 182
Lebiates pœciloides 564
Lebrancho—Mugil liza 35
Leche, Dr 209, 217
Lechuza de campanario 163
llano 164
hitada de cara negra 164
Le Conte, Dr 409
Lee's Creek fishes taken 6
Lefroyia bermudensis 600
Leiodon 242
Leiopicus 108
Leisostomus xanthurus 588
Leisomus 242
Lembus 482
Lemming 223
white 223
Lenguado—Citharichthys spiloptrus 53
Platophys lunatus 51
Lepidogobius 477, **480**, 488, **501**, 502
analysis of species of **502**
Page.
Lepidogobius emblematicus 505
gracilis 502
gulosus 505
lepidus **502**, **503**, 517
newberrii 517
newberryi **502**, **503**
thalassinus 505
Lepidosteus, absorption of suctorial disk in 79
manjuari 558
osseus 6, 14, **18**, 22, 26
tristœchus 6, 558
Lepisosteidæ 558
Lepisosteus 339
spatula 558
Lepomis cyanellus 10, 12, 19, 21
holbrooki 464
humilis 5, 10, 12, 16
megalotis 5, **10**, 12, **19**, 21, **23**, 24, 464
pallidus 10, 12, 14, 17, 21, 24, 464
Leporidæ from Alaska 222
of Mexico 130
Leptecheneis metallica 572
Leptochiton cancellatus **211**, 217
Leptoconger perlongus 567
Leptognathus fasciata 183
nebulata 183
Leptophidium profundorum 600
Leptophis mexicanus 185
Leptops olivaris 7, 14, 17, 18, 20
Leptoptila albifrons 175
Leptorhinophis gomesii ? 566
Leptoscopidæ 508
Lepus sylvaticus 130
timidus 222
Les Batrachopes 244
Dichotomyctères 241
Dilobomyctères 241
Ephippions 241
Ovoïdes 241
Rynchotes 245
Sphæroïdes 232
Le Sphéroïde tuberculé 237
Lestoteuthis fabricii **209**, 217
Le Tetrodon mal-armé 232
museau-allongé 246
perroquet 244
Plumier 237
spenglerien 237
Letharchus velifer 606
Leuconotopicus 108
Lichtensteinipicus 123
Lightning holes in copper 89
Lilé-Falco sp 168
Lilford, Lord 107
Limacina helicina **203**
Limax (Agriolimax) hyperboreus **202**, 217
hyperboreus 202
Limia cubensis 564
Limicolæ 622
Limnœa (Leptolimnæa) minuscula 253
ovata 217
palustris var. vahlii 202
vahlii 202
Limnobænus 396, **398**
Limosa fedoa **628**

Page.
Linnæus.....37, 53, 201, 232, 240, 241, 243, 333, 340
Linopneustes longispinus..... 288
Liomesus..... 304
Liopipo..... 108
Liopropoma aberrans..... 581
Liosaccus..... 233
Liostomus xanthurus..... 28
Liparis..... 542
Lischke.....213, 214
Lithodytes rhodopis..... 197
Lithotrochus andii..... 250
Litorina.....204, 205
grandis..... 209
grönlandica..... **203**
rudis var.? 203
sitkana.....211, 218
var. atkana..... **211**
tenebrosa, var. costulata..... 211
obtusatæa..... 211
var. atkana..... 218
subtenebrosa..... 218
Litorinidæ from Labrador..... 203
Liu Kiu Islands, birds from..... **634**
Liza-Mugil curema..... 35
Lobotes surinamensis..... 582
Lockington, W. N..... 510
Lonchopisthus micrognathus..... 598
Lonchurus depressus? 588
lanceolatus..... 588
Lophius, development of spines in..... 75
piscatorius..... 30
Lophogobius.....**49**, 477, **480**, **486**, 488
cyprinoides...49, **486**, **487**, 517, 595
skeleton of..... 513
Lophophanes wollweberi..... 135
Loricariidæ..... 559
Loro—Chrysotis sp..... 163
Scarus cœruleus..... 48
virginalis..... 47
Lovenia cordiformis..... 288
subcarinata..... 257
Lovén, Professor..... 297
Lower California, new Rhinoptera from..... 220
Loxia cærulea..... 141
Loxigilla noctis..... **614**
Lucifuga subterranea..... 600
Lucina profunda..... 251
Lucius..... 339
Lunda cirrhata.....655, 656
Lupha..... 408
Lusciniinæ..... 644
Lutjanus..... 32, 41
ambignus..... 582
analis..... 42, 583
aya.....**41**, 226, 229, 334, 482, 534, 583
blackfordi..... 41
brachypterus..... 582
buccanella..... 41, 582
caballerote..... 41
campechianus..... 583
canina..... 534
caxis.....41, 534, 582
cayennensis..... 588
cubera.....41, 534, 582
cyanopterus..... 582

Page.
Lutjanus dentatus..... 534
type of..... **534**
griseus..... 41, 582
jocú.....41, 534, 582
lunulatus..... 40
lutjanoides..... 583
mahogani.....41, 534, 582
notes on..... 41
Ojanco..... 41, 534
profundus..... 41, 582
synagris..... 41, 582
Lütken, Dr. Chr..... 297
Lutra canadensis..... 221
Luxilus chickasavensis..... 14
kentuckiensis..... 4
Lycengraulis grossidens..... 562
Lygosoma (mocoa) Gemmingerii..... 196
Lynx rufus..... 128
Lysca..... 408

M.

Macabi—Albula vulpes..... 33
Machuelo—Opisthonema oglinum..... 33
Macleay, William..... 232
Macoma edentula var. middendorffii...**308**, **309**
middendorffii..... 218
tenera, var. gronlandica..... **207**
var. middendorffii..... 308
Macrocolus halticus.....409, 410
Macrocyclis Duranti..... 460
Macrodon ferox..... 560
Macrodonophis mordax..... 567
Macrognathus..... 336
scolopax..... 340
Macropharyngodon..... 57
Macropicus..... 123
Macropneustes spatangoides..... 288
Macrorhamphosidæ..... 571
Macrorhamphosus scolopax..... 571
Macruridæ..... 601
Macrurus caribbæus..... 601
occa..... 601
Mactra falcata..... 218
Malacanthidæ.....594, 607
of Havana..... 48
Malacanthus plumieri..... 48, 594
Malacocephalus occidentalis..... 601
Malherbe..... 110
Mallard..... 630
Malthe vespertilio.....54, 229, 603
Malthidæ..... 603
of Havana..... 54
Mammals from Alaska..... **221**
of Mexico..... **127**
Mangilia? alaskensis..... 299
aleutica..... 299
funebralc..... 299
lividensis..... **299**
Man-o-war Bird..... 630
Manta birostris..... 26, 558
Mantidæ..... 558
Mapo—Batrachus tau..... 50
Maregrave.....40, 353, 602
Maregrav, Georg..... 546
Maregravia cryptocentra..... 546

Page.
Maregravia, new genus **546**
Marcou, J. B., on invertebrate types **250**
Marecca americana 659
penelope 655
Maretia alta 257
planulata 288
Margarita **206**
helicina **206**, 215, 218
obscura 209
olivacea 209
var. gigantea 209
umbilicalis **206**
varicosa 215, 218
vorticifera 215, 218
Margaritana nebrascensis 252
Margaritiphora 206
Marinero—Ostinops sp 149
Marmot, hoary 224
Marshall 297
Marsh-tit 380
Boreal 378
British **200**
long-tailed 381
Marsh-tits, appendix to 394
Japanese 381, 382
Marta—Cercoleptes sp 128
Martin pescador—Ceryle sp 160, 161
de rio 161
Martinete cangrejero 170
Martucha—Cercoleptes sp 128
Mason, C. T., sent fulgurites 83, 85
Prof. O. T 92
Mastacembelus 339
Matraca—Ceryle sp 160
Troglodytes sp 136
Mauve (Larus sp) 631
Mazacoatl—Boa sp 183
Mazyck, William G 461
on new shell **460**
McKay, Charles L 222
mammals from **221**
obtained Dall's sheep 224
Mecistura 382
longicaudata 384
pinetorum 386
rosea 384
vagans 382, 383, 384
Media luna—Chætura sp 158
Meek, Seth E 38, 225, 525, 526, 529
collected fishes 1
on Acanthuridæ 48
Gerridænidæ 44
Sphyrænidæ 36
took Etheostoma whipplei 9
Megalops atlanticus 33, 561
Megascops elegans **639, 640**
measurements of **641**
japonicus 639, 640, **641**
lettia 639, 640
scops 639
Megiatura 382
Megisturus 382
Melanetta 659
Melanerpes formicivorus 159
Melania wyomingensis 253

Page.
Melanotis cærulescens 132
Melichthys piceus 604
Mellita longifissa 284
pacifica 284
sexforis 285
testudinata 285
Melopelia leucoptera 175
Melospiza fasciata mexicana **144**
lincolnii 144
melodia var. mexicana 144
Menephorus 581
punctatus? 581
Menidia brasiliensis 571
laciniata 27, 530
martinica 530, 571
menidia 27, 530
Menticirrus alburnus 28, 539
arenatus 588
littoralis 28
martinicensis 539, 588
Mentiperca 579
Meoma grandis 291
ventricosa 291
Merganser albellus 655
castor 655
merganser 655
serrator 655
Mergansers 660
Merle 615
Merlion 622
Merrill, Geo. P., on fulgurites **83**
Merula alpestris 365, 366, **367**, 369
collaris 372
flavirostris 132
grayi 132
insignis 369
maculata 369
migratoria propinqua 132
montana 372
torquata **367**, 369
tristis 131
vociferans 369
Mesogobius 487
Mesoprion campechianus 41
cyanopterus, type of **534**
cynodon, type of **534**
flavescens, type of **534**
linea, type of **534**
litura, type of **534**
mahogoni, types of **534**
pargus 534, 582
ricardi **534**
vivanus 41, 583
types of **534**
Mesozoic invertebrate types, list of **250**
Mesphilia globulus 257, 277
Metalia pectoralis 290
sternalis 291
Mexico, catalogue of animals of 125
birds of **130**
genera of birds of 180
new birds from **130**
reptiles of 182
and batrachians of **199**
Meyer, Dr. A. B 642

Page.
Meyer, Dr. Paul 74
on fins of Elasmobranchs. 71
Miahuacuitlapitl—Dipsas sp 184
Micrathene graysoni **166**
whitneyi **165**, 166
Microcichla 544
Microcyphus maculatus 257, 277
Microgobius 50, 477, 480, 488, **503**
analysis of species of **503**
emblematicus 498, **505**, 517
gulosus **503**, **505**, 517
skeleton of 514
signatus .. **49**, 503, **504**, **505**, 517, 596
skeleton of 514
thalassinus ... **504**, **505**, 517
Micropalama himantopus 178, **628**
Micropodidæ of Japan **102**
Mexico 158
Micropodoideæ of Japan **102**
Micropogon fournieri 44, 588
undulatus 28, 44
Micropterus dolomieï 5, 12
salmoides 10, 12, 14, 16, 19, **21**, 22, 24, 464
Microsicydium 485
Microspathodon chrysurus 593
sp 58
Middendorff 210, 213
Milvulus forficatus 155
tyrannus **619**
Mimus gilvus **610**
polyglottos 132
Mink 221
Minnows in Rio Comal 23
Minytrema melanops 462
Mirlo—Turdus sp 131
Mitchill 37
Mitrephorus fulvifrons 155
Mniotilta varia 136
Mniotiltidæ of Grenada 611
Mexico 136
Möbius, Prof. C., Echini from 257
Mobula hypostoma 558
Mochuelo—Syrnium sp 164
Modiola modiolus 218
Modiolaria discors 218
lævigata 207, **216**, **217**
(var. ?) 218
lævis 216, 217
Moharra 589
de Casta—Gerres cinereus 44
Ley—Gerres gracilis 45
Gerres gula 44
Gerres pseudogula 45
Gerres olisthostoma 44
rhombeus 44
Moira atropos 292
Mola mola 606
Mole, new genus and species of 97
Mollusca from Bering Island **209**
of Bering Island 217, 218
Mollusks from Labrador, list of 208
of Bering Sea, notes on **297**
Labrador **202**
Molossus glaucinus 127

Page.
Molossus rufus 127
Molothrus æneus **151**
ater **151**
obscurus 151
Momotidæ of Mexico 160
Momotes cæruliceps 160
mexicanus 160
Monacanthus amphioxys 605
ciliatus 605
davidsoni 605
hispidus 30, 605
irroratus 605
macrocerus 605
occidentalis 605
oppositus 605
parraianus 604
pira-aca 605
pullus 605
punctatus? 605
setifer 605
spilonotus 605
stratus 604
Mongita de S. Bartolo—Euphonia sp 140
Moniana pulchella 8
Monochir reticulatus 602
Monolene atremana 602
Monoprion 586
Monosira 587
stahli 587
Monotreta 243
Monticola solitaria **646**
Moorhen 406
Mörch 298, 303, 304
Morena pintita—Sidera moringa 34
Morse 460
Prof. E. S., sent new mole 97
Mosquero—Contopus sp 155
Hadrostomus sp 156
Motacilla cærulea 134
calendula 133
melanope **642**
æstiva 137
trochilus 383
varia 136
virens 137
Motacillidæ of Mexico 136
Moto—Spermophilus sp 129
Mountain Grieve 649
Mouse, Jumping 223
Meadow 223
Red-backed 223
Moxostoma 11, 15
aureolum 18
congestum **18**, 20, 22, 23
macrolepidotum 2, 7, 11
pœcilurum **15**
Mugil albula 571
brasiliensis 35, **530**, **531**, 571
cephalus 27, 571
curema 27, 35, 571
gaimardianus 35, 571
incilis 571
lebranchus 35, 531, 571
liza 35, 530, 531, 571
trichodon 35, 530, 531, 571

Page.
Mugilidæ 571, 607
of Havana 35
Mulato Primavera—Melanotis sp 132
Müller 242
Baron von 370, 371
Commodore H 454
and Troschel 235
Picus from 108
Mulleripicus 123
richardsi 124
Mullidæ 586, 607
of Havana 43
Mulloides flavovittatus 43
Mullus surmuletus 356
auratus 607
Munch, Prof. P. N 454
Muræna afra 565
cubana 34
longicollis ? 474
melanotis 566
multiocellata 566
Murænesox curvidens ? 567
savanna 567
Murænidæ 565, 606
of Havana 34
Murænoides 542
Murænophis punctata 566
Murciélago—Artibeus sp 128
Cephalacanthus volitans 50
Molossus spp 127
Vampyrops sp 128
Murdoch, John 297
Murex magellanicus 213
Muridæ from Alaska 223
Murrelet, Ancient 524
Temminck's 524
Muscicapa forficata 155
fulvifrons 155
phœbe 154
pusilla 137
saya 154
texensis 154
Mus decumanus from Japan 97
Muskrat 223
Mustela brasiliensis 129
frenata 129
Mustelidæ from Alaska 221
of Mexico 129
Mustelus 555
canis 310, 315
Mwen (Anous sp.) 632
Mya arenaria 297
truncata 207, 218
Myiadectes obscurus 133
Myadestes obscurus **133**
Mycteroperca bonaci 40, 580
calliura 580
dimidiata 580
falcata 39, 580
interstitialis 39, 580
microlepis 27, 40, 580
reticulata 580
scirenga 356, 532, 580
tigris 39, 580
venenosa 40, 580

Page.
Mycteroperca venenosa apua **40**, 580
Myctophum nocturnum 503
Myiarchus cinerascens 155
coalei, new species **520**
new species of **520**
nigriceps 520
oberi **617**
Myiodioctes pusillus 137
Myiopsitta lineola ? **94**
Myiozetetes texensis 154
Myliobatidæ 558
Myliobatis fremenvillei 26, 558
goodei 558
Myodes obensis 223
Myriopristis fulgens 578
jacobus **38, 39**
lychnus **38**
Myripristis Jacobus 578
lychnus 578
trachypoma 578
Myrmeciza longipes 644
Myrophis egmontis 607
longicollis 474
lumbricus 474, 567
microstigmius 474, 567
punctatus **474**, 567
Mytilus edulis **207**, 218
Myxodes lugubris 599
macropus 599
varius 599
versicolor 599

N.

Namiye, M 375, 635, 637, 638, 639, 640, 642, 645, 646, 647, 648
bird named for 119
sent Japanese birds **634**
Narcine brasiliensis **472**, 557
corallina 472
nigra 472
umbrosa 472, 557
Natica clausa **212**, 218
grönlandica 212
russa 218
septentrionalis 212
Naucrates ductor 575
Naumann 397
Nauyac—Bothrops sp 190
Nauyague—Bothrops sp 190
Naval architecture, Norsk 443
Neæra behringensis 216
Nealotus ophidianus 573
Nebris microps 588
Needle-fish 351
California 349
Needle-fishes, American 339
Nehrling 136
Nematognaths, adipose fin of 72
air-bladder of 72
barbels of 72
Nematopoma 560
Neobythites gilli 600
marginatus 600
robustus 600
Neoclinus 510

Page.
Neoconger mucronatus 607
Neolampas rostellata 286
Neomuræna nigromarginata 473
Neptunea harpa 304
(Sipho) terebralis 205
Nerita 252
Nerophis 570
Netuma 559
Neumoegen, B 415
M 421
Neurotrichus 97, 98
gibbsii, measurements of **98**
Newcomb 460, 461
Newland, Mr., on Sphyræniidæ 36
Newton, Professor 200
Nichols, Lieut. Com. H. E 297
Echini from 256
Nicolaysen, Mr 455, 459
Ninia atrata sebæ 187
var. sebæ 187
diademata 186
Nolan, Dr. E. J 242
Nomeidæ 576
Nomeus gronovii 27, 576
oxyurus 576
Norman, Rev. A. M., Echini from 257
Norsk naval architecture **443**
North Carolina fishes **25**
Notemigonus chrysoleucus bosci 462
Nothocercus sallæi 180
Notropis analostanus 11
coccogenis 3
comalis **24**
dilectus 7, **11**, 14, **15**
deliciosus 15, 17, 19, 22, **23**, **24**
var. missuriensis 24
galacturus **2**, 3
illecebrosus 7
ionthas 11
lutrensis 8, 15, 17, 19, 20, 21, **22**, 24
megalops 4
micropteryx **4**
nocomis **24**
notatus **20**
piptolepis 2
sabinæ, new species **15**
scabriceps **3**, **7**, 11, 24
swaini 21, 22, **24**
texanus **17**, 19
umbratilis 7, 11
venustus **14**, 15, **19**, 20, 21
stigmaturus 462
whipplei **8**, **11**
xænocephalus 462
zonatus **2**, 4
Noturus, adipose dorsal of 80
development of adipose dorsal in 81
flavus 6, 7
gyrinus 6
insignis 6
leptacanthus 7
miurus 2, 6, 10
nocturnus 10, 15, 17, 18
new species **6**
Nucleolidæ 286

Page.
Numenius borealis **629**
hudsonicus 629
longirostris 179
Nuthatch, Hondo 390
Kamtschatkan 393
Yesso 392
Nuthatches of Japan 374
Nycticorax nycticorax nævius 170
violaceus 170, **627**
Nyctidromus albicollis 158
Nyroca ferruginea 655

O.

Ō-akagera—Dryobates subcirris 113
Oar, early scandinavian 449
Ō-ban (Fulica sp.) 408
Ober, F. A 609, 617, 620, 627
Obispillo—Parus sp 135
Oceanites oceanicus **632**
Oceanodroma furcata 655, 656
homochroa 656
leucorhoa 655
melania 656
Ocyurus chrysurus 42, 583
Odontaspis littoralis 316
Odontognathus mucronatus 562
Odontogobius 487
Odontoscion dentex 44, 587
Ogilvie—Grant 485
Ogmius 189
acutus, new species **189**
varians **189**
Ognichodes 512
Ohio basin fish wealth 25
Ohirocentrodon tæniatus 562
Oidemia americana 655, 659
deglandi 659, 660
fusca 655, 659, 660
nigra 659
(Pelionetta) perspicillata 659
velvetina 659
Ojanco—Lutjanus mahogani 41
Oligolepis 487
Oligoplites occidentalis 38, 576
saliens 576
saurus 38, 576
Oligosoma gemmingeri 196
Olor americanus 658
bewicki 655, 658
columbianus 658
cygnus 655
Olphe—Galliard, Leon 368
Ō-naga (Ægithalos sp) 384
Onoba aculeus 307
aleutica **307**
cerinella **307**
proxima 307
saxatilis **306**
striata 307
Onychoteuthis kamtschatika 209
Onzita—Putorius sp 129
Ophibolus polyzonus 187
Ophichthys brachyurus 567
chrysops 566
havanensis 566

Page.
Ophichthys intertinctus 567
macrurus 566
magnioculis 566
ocellatus 566
patilis 566
pauciporus 567
pisivarius? 566
puncticeps 567
punctifer 567
schneideri 567
triserialis 566
Ophidia of Mexico 183
Ophidiidæ 600, 608
Ophidion beani 608
brevibarbe 600
graëllsi 600
marginatum 29
Ophidium beani 475
marginatum 600
Ophioblennius webbi 598
Ophisoma 567
impressa? 567
Ophisuridæ 566, 606
Ophisurus acuminatus 566
breviceps 566
latimaculatus? 566
longus 566
pardalis 566
Ophryacus undulatus 190
Opisthognathidæ 598, 608
Opisthognathus 510
lonchura 608
macrognatha 598
megastoma 598
scaphiura 598, 608
Opisthonema oglinum 26, 33, 561
Opisthonemus thrissa 33
Orbis lævis variegatus 239
lagocephalus 232
Orcynus alalonga 574
subulatus 574
thunnina 574
thynnus 574
Oriolus ater 151
phœniceus 151
spurius 150
Orites 382
trivirgatus 384
Ornichthys 327
Ornismya cyanocephala 158
duponti 157
henrica 157
Orpheus cœrulescens 132
curvirostris 132
Ortalida maccalli 176
poliocephala 175
vetula var. maccalli 176
Ortalis poliocephala 175
vertula maccalli 176
Orthagoriscidæ 606
Orthopristis bennetti 583
chrysopterus 27, 42, 583
fulvomaculatus 42
poeyi 42, 583
Orthorhynchus cristatus **620**

Page.
Orthostomus 481
Ortolan (Columbigallina sp.) 625
Ortygometra 401
Ortyx pectoralis 176
Osprey 622
Osteochiton, new name **211**
Ostinops montezuma 149
montezumæ 149
Ostraciidæ 604
of Havana 54
Ostracion bicaudale 54, 604
cathetoplateo oblongus 232
oblongus glaber 239
quadricornis 604
tricorne 54, 604
trigonum 30, 54, 604
triquetrum 604
Ostracium expansum 604
Ostrea (Alectryonia) Blackii 252
larva 252
procumbens 250
carinata 252
compressirostra 253
diluviana 252
elegantula 252
glabra 253
gregaria 250
irregularis 250
lurida 254
glumosa 252
sellæformis 253
strigilecula 250
subfalcata 254
testicostata 252
thirsæ 253
vickaburgensis 253
vomer 252
Otariidæ from Alaska 222
Othonops 510
eos 511
Otolithus carolinensis 540
guatucupa, types of **540**
leiarchus, type of **540**
nebulosus, type of **540**
toëroe 588
virescens 588
Otophidium omostigma 608
Otter 221
Ovis canadensis Dalli **224**
Ovum 241
Owen 76
Owl 621
socorro Elf **166**
Oxydontichthys limbatus 567
Oxyechus vociferus **627**
Oxyeleotris 483
Oxyjulis **56, 65**, 69
analysis of species of 65
californicus **65, 66**, 69, 70
modestus 65, 66, 70
Oxymetopontinæ **477**
Oxyrhopus cœlia 187
Oxyurichthys 487
Oyster-catcher, a new **324**
Ozark region fish fauna 25

P.

Page.

Pachymya austinensis 252
Pachypops furcræus 587
trifilis 587
Pachyrhynchus aglaiæ 156
Packard, A. S. 416, 430
Pagellus 585
pernambucensis 585
Paille-en-queque (Phaëthon sp.) 631
Pájaro boko—Momotus sp 160
gato—Lanius sp 138
Palæichthyes discussed 82
Palæobrissus Hilgardi 287
Palæotropus Josephinæ 287
Palancacoatl—Crotalus sp 191
Rhinechis sp 186
Paleopneustes cristatus 287
hystrix 288
Paleostoma mirabilis 257
Pallas 396
Palmer, Dr. Edward, collected Echini 256
Paloma barranquera 175
torcaz de alas blancas 175
Palometa—Trachynotus rhomboides 38
Pámpano—Canarx crinitus 37
Pandarus bicolor 311, 314
Cranchii 315, 316, 317
descriptions of species of **310**
lugubris 315
sinuatus **310**, 315, 316
Smithii, new species **315**
sp 310
Pandion haliætus carolinensis **622**
Papamosca boyero—Sayornis sp 154
gris—Contopus sp 155
—Sayornis sp 154
verdoso—Contopus sp 155
Papamoscas aplomadito—Polioptila sp 134
Papamosquita canelo—Empidonax sp 154
Papamoxca negro de rio—Sayornis sp 154
Papavientos—Antrostomus sp 158
Paralepididæ 562
Paralichthys albigutta 29
brasiliensis 602
dentatus 29, 320
lethostigma 29
Paranthias furcifer 39, 580
Parasalenia gratiosa 257, 270
Paratractus pisquetus 575
Paratrygon strongylopterus 557
Parcho—Chætodon capistratus 48
o Isabelita de lo Alto—Chætodon sp 48
Pardalotus affinis **294, 295, 296**
assimilis **294**, 295, **295, 296**
key to species of **296**
melanocephalus **295, 296**
notes on species of **294**
ornatus **294, 295, 296**
punctatus 295, **296**
quadragintus **296**
rubricatus **296**
striatus 294, 296
uropygialis **296**
xanthopygius 295, **296**

Page.

Pareques 587
Parexocœtus mesogaster 569
Pargo criollo—Lutjanus analis 42
de lo Alto—Lutjanus sp 41
Guachinango—Lutjanus aya 41
Paridæ of Japan **374**
Mexico 134
Paroides 382, 387
caudatus 382
longicaudus 386
Parus **374**, 375, **376**
ater 377, 380
britannicus 201, 377
subsp. (?) **375, 377**
atriceps 376
baicalensis 201, 382, 394
borealis, **201, 375, 378**, 379, 380, 381, 382, 394
measurements 381
brevirostris 201, **375**, 380, **381**, 382, 394
measurements **382**, 394
britannicus 200, 201, 378
castaneiventer 375
castaneiventris 375, **375, 650**
measurements of **650**
caudatus 382, 384, 386
cinereus 376, 378
minor 376
montanus (?) 378
commixtus 376
(cyanistes) cœruleus 375
dresseri **201**, 394
fruticeti **201**, 376
insperatus 376
japonicus 201, 378, 380, 381, 382, 394
kamtschatkensis 381, 382
major 376
melanotis 134
meridionalis **134**
minor **375, 376**, 381
monticolus 376
insperatus 376
nipalensis 376
minor 376
palustris 200, **201**, 378, 379, 380, 381, 394
brevirostris 380, 381
dresseri, new subspecies **200**
japonicus 378, 380, 381
vera 201
perkinensis 377
pendulinus 382, 387
rubidus 375
songarus 394
synopsis of Japanese 375
trivirgatus 384
varius **375**
measurements of **650**
wollweberi **135**
Passerculus alaudinus 145
Passerina ciris 142
cyanea 142
leclancheri 142
versicolor 142
Pastinaca humboldtii 557
Patao—Gerres brasilianus 44
plumieri 44

Page.
Pato boludo de cabeza café 174
prieto 174
golondrino 174
pardo de grupo 173
triguero 171
zambulidor de pico arzul 174
Patula alternata 461
Duranti 460
ruderata, var. pauper 217
Paviota—Larus sp 179
Pavoncella pugnax 151
Peale, Mr. 296
Pecten alaskensis 217, 218
Hoskynsi, var. major 217
(Neithea) alatus 250
(Propeamusium) alaskensis **217**
pustulosus 217
Pedréte amarillo 170
—Botaurus sp 170
de márcara 170
Pegareborda—Lanius sp 138
Pelican 630
Pelecanidæ of Grenada 630
of Mexico 169
Pelecano alcartáz 169
Pelecanus aquilus 169
fuscus 169, **630**
Pellona bleekeriana 561
flavipinnis 561
Pempheridæ 577
of Havana 38
Pempheris chomburgki 577
mexicanus 38
mulleri 38, 577
poeyi 38, 577
schomburgki **38**
Pendulinus 387
Penelope poliocephala 175
purpuraceus 175
Pensacola fishes, notes on 225
Pentanemus quinquarius 572
Penthestes 374
Pepe de cola amarilla—Ostinops sp 149
Pepe—Psilorhinus sp 153
Perca striata? 584
trifurca 468
Percina caprodes 5, 8, 13, 21
Perdrix 625
Periaster limicola 292
Perico—Cornurus sp 163
Phricrocotus cantonensis 648
cinereus 648, 649
measurements of **650**
japonicus 649
measurements of **650**
tegimæ, measurements of **650**
new species **648**, **649**
Periparus 374, 375, 377
Peristedion brevirostre 596
imberbe 596
longispatha 597
platycephalum 597
Peristera cinerea 175
pretiosa 175
Peristethion micronemus 596

Page.
Peronella decagonalis 257, 282
Perro—Botaurus sp 170
Colorado—Bodianus rufus 45
—perro—Lachnolæmus maximus 45
Perry, Commodore 407
Pescadora—Botaurus sp 170
Pesce Rey—Oxyjulis californicus 65
Pespirria—Polioptila cærulea 134
Petalosticha 286
Petasophora thalassina 157
Peto—Acanthocybium solandri 36
Petrel from Sandwich Islands 95
Stormy 660
Wilson's 632
Petrochelidon lunifrons **139**
melanogaster 139
pyrrhonota 139
Petrocossypus manillensis 646
Petrometopon 581
apiarius 40
guttatus 41
Petromyzon, median fin-folds in 81
Pez de Pluma, Calamus providens 42
Phæthonidæ of Grenada 631
Phaëthon aëthereus **631**
Phainopepla nitens 139
Phalacrocoracidæ of Mexico 169
Phalacrocorax bicristatus 655
capillatus 655, 656
carbo 655
dilophus albociliatus 656
cincinatus 656
mexicanus 169
pelagicus 655, 656
resplendens 656
robustus 656
penicillatus 656, 657
urile 655, 656
Phalæna 423, 427, 429, 430, 434
attacus 416
Phalaris 408
Phalaridion 396
Phalaridium 396
Phalaropus tricolor 178
Phenacabius mirabilis 8, 15, 17
Pheucticus chrysopeplus 141
Philortyx fasciatus 176, 177
personatus redescribed **176**
Philypnus 482
lateralis 482
Phocæna 97
Pholadidea penita 281
Pholas crispata 218
Pholis 542
Phormosoma placenta 267, 268
uranus 268
Phoxinus neogæus 4
Phrenopicus 108
Phrynosoma asio 194
cornutum 194
orbiculare 194
Phtheirichthys lineatus 572
sphyrænarum 572
Phycis floridanus **475**, 608
regius 29

Page.
Phycis tenuis 322
Phyllacanthus 262
annulifera 262
dubia 257, 262
gigantea 262
imperialis 257, 262
Phyllostoma lineatum 128
Phyllostomidæ of Mexico 128
Phymatolepis bicarinatus 192
Phymosoma crenulare 257, 277
Physa kansabensis 253
pleromatis 253
Physiculus kaupi 601
Physogaster 231
Piaya cayana 162
mexicana 162
Pica formosa 153
ornata 153
sieberii 153
Picariæ of Japan 101
Picarians of Japan 101
Picidæ of Japan **102**
Mexico 158
Picanæ of Japan **102, 104**
Pico de canoa 163
verde 163
gordo—Saltator sp 141
Picoideæ of Japan **102**
Picolaptes affinis 156
a new species of **523**
rikeri, new species **523**
zonatus 135
Picuda—Sphyræna picuda 36
Piculus 108
Picus 108, 123
avokera 105, **104, 105**
cabanisi 109, 110, 112
canus 105, 106, 107
jessoensis, new subspecies **106**
measurements of 108
perpallidus 107
viridi-canus 106
cirris 114
cornicinus 124
elegans 160
formicivorus 159
gouldi 109
gouldii 110, 111, 112
guatemalensis 158
guerini **105**
hardwickii 120
hyperythrus 108
hypopolius 160
insularis 117
Japanese species of **104**
japonicus 109
jardinii 159
javensis 123
jessoensis **104, 105**, 107
measurements of 108
jynx 102
kisuki 120, 123
kizuki 120
leuconotus 108, 113, 114, 116, 117, 118
leucotos 114

Page.
Picus luciani 109, 110, 112
major 108, 109, 110, 112
cissa 109
japonicus 109, 1.2
mandarinus 101
martius 123, 124
measurements of 108
medius 108
minor 108, 119
pipra 119
var. borealis 119
modestus 123
nuttallii 521
perpallidus **105**
measurements of 108
pileatum 124
pipra 119
pubescens 108
pulverulentus 123
saundersi 107
scalaris 159
scapularis 159
seebohmi 123
sharpii 107
tancola **105**
tridactylus 108
uralensis 113, 114
varius 159
viridi-canus, measurements of 108
viridis 105, 106
zizuki 120
Pijon—crotophaga sp 162
Pika 222
Pike, common 340
Piker 628
Piliscus commodus 218
Pillot 238
Pimelepterus 585
bosqui 585
flavolineatus? 585
Pimelodus albidus? 558
barbus 559
catulus **22**
commersoni 559
spixi? 558
vilsoni 559
Pimelonotus 559
Pimephales notatus 2, 7, 11, 20
Pintada—Scomberomorus spp 36
Pipilo 147
carmani 147
chlorurus 148
complexus, new species **147**
fusca 148
fuscus **148**
mesoleucus 148
macronyx 147, 148
maculatus 146, 147
oregonus 147
submaculatus 147
new species **146**
torquatus 148
Pippiree 618
gros-tête 617
Top-knot 616

Page.
Pipra elegantissima ... 140
europæa ... 382, 383, 384
Pipripicus ... 108
Piranga hepatica ... 140
ludoviciana ... 140
rubra ... 140
Pirati apia ... 40
Pisidium æquilaterale ... 218
Pisoodonophis ... 566
guttulatus? ... 566
oculatus ... 566
Pitangus derbianus ... 154
Pito real—Ceophlœus sp ... 158
Placiphorella ... **211**
Blainvillii ... 210, 211
imporcata ... **211**
sinuata ... **211**
stimpsoni ... **210**, **211**, 217
velata ... 210, 211
Placopharynx carinatus ... 2, 7, **11**
Placunanomia macroschisma ... 217, 218
Plagioscion ... 587
Plagyodus ... 562
Plasencia, Señor Leonel ... 32, 42, 44
Plataleidæ of Grenada ... 627
of Mexico ... 171
Platiglossus ... 57
Platophrys ... 52
ellipticus ... **51**, **52**, 601
lunatus ... **51**, **52**, 601
maculifer ... 601
maculiferus ... 52
nebularis ... **52**, 608
ocellatus ... 601
spinosus ... 601
Platycephalidæ ... 597
Platycephalus angustus ... 597
domitator ... 482
Platyglossus ... **56**, 57, 65, 66, 67, 69
analysis of species of ... 58
bifasciatum ... 590
bivittatus ... 28, **45**, **59**, **60**, **63**, **65**, 69, 70, 540, 590
caudalis. 45, **59**, 60, **64**, 69, 70, 541, 590
crotaphus ... 64
cyanostigma ... 59, 60
cinctus ... 541
defined ... **57**
dimidiatus ... 45, **58**, **61**, 62, 69, 70, 590
dispilus ... **59**, **64**, 69, 70
florealis ... 63, 64, 70
garnoti ... 45, **58**, **61**, 69, 70, 541, 590
grandisquamis ... 63
humeralis ... 63
internasalus ... 61
maculipinna ... 28, **58**, **62**, 69, 70, 590
nicholsi ... **58**, **61**, 69, 70
opalinus ... 60
pictus ... 64, 65
poeyi ... 64, 70
principis ... 60
radiatus. **45**, **58**, **59**, 63, 65, 69, 70, 590
ruptus ... 61
semicinctus ... **58**, 60, 69, 70
Platyinius macrophthalmus ... 535

Page.
Platyinius vorax ... 42
Platysamia ... 418, 419, 425, 426, 427
polyommata ... 422
Plecostomus robini ... 560
Plectropoma melanorhinum ... 579
vitulinum? ... 579
Plectrypops prospinosus ... 578
retrospinis ... 578
Plegadis guarauna ... 171
Pleuronectes apoda? ... 602
aramaca ... 602
lineatus? ... 602
macrolepidotus ... 602
papillosus ... 602
plagiusa ... **53**
Pleuronectidæ ... 601, 608
of Havana ... 51
Pleurotoma (Bela) violacea ... 218
beringi ... **216**, 218
bicarinata ... 216
vinosa ... 216
violacea ... 216
Pliny ... 340
Pliocercus elapoides ... 188
Plover, American Golden ... 627
Cotton-tree ... 628
Grey ... 627
Ring-neck ... 637
Plumier ... 332
Pluvial dorado ... 178
Pneumatophorus ... 574
Podiceps californicus ... 179
holbœllii? ... **633**
holbölli ... 633
occidentalis ... 179
Podicipitidæ of Grenada ... 633
Mexico ... 179
Podilymbus podiceps ... 180, **633**
Podocidaris ... 264
sculpta ... 264
Pœcila ... 374
Pœcilo ... 374, 378
Pœcilia ... 374
brevirostris? ... 381
dominicensis ... 564
melanogaster ... 564
pavonina ... 564
vittata ... 564
vivipara ... 564
Pœcilichthys asprigenis ... 16
jessiæ ... 16
palustris ... **9**, **10**, 13
punctulatus ... 9
swaini ... 16
Pœcilophis ... 565
Poey, Prof. F ... 31, 33, 34, 38, 43, 44, 46, 53, 55, 68, 246
sketch of ... 31, 32
Progonias chromis ... 28
Poikilia ... 374
Polioptila cærulea ... 134
Polyborus cheriway ... 168
Polycentridæ ... 588
Polycentrus tricolor ... 588
Polydactylus plumieri ... 572
Polymixia lowei ... 577

Page.
Polynemidæ ... 572
of Havana ... 36
Polynemus oligodon ... 572
virginicus ... 36, 572
Pomacanthus arcuatus ... 594
aureus ... 48, 594
Pomacentridæ ... 592, 607
Pomacentrus analis ? ... 592
atrocyaneus ... 592
caudalis ... 229, 592
denegatus ... 593
dorsopunicans ... 592
fuscus ... 592
leucostictus ... 592
nivatus ... 592
obscuratus ... 592
otophorus ... 592
partitus ... 592
planifrons ... 592
rectifrænum ... 592
xanthurus ... 592
Pomadasys approximans ? ... 583
boucardi ... 583
croco ... 583
cultrifer ... 583
productus ... 583
viridensis ... 583
Pomatomidæ ... 576
Pomatomus saltatrix ... 27, 576
Pomatoschistus ... 487
Pomatostegus stellatus ... **551**
Pomoxys annularis ... 10
sparoides ... 14, 464
Pompano ... 531
Pontius pollux ? ... 596
Poocætes gramineus confinis ... 142
Poocætes gramineus var. confinis ... 142
Poospiza olivacea ... 140
Porcupine, Yellow-haired ... 222
Porichthys plectrodon ... 598
porosissimus ... 229, 598
Porocidaris ... 262
Sharreri ... 262
Porogadus miles ... 600
Porogobius ... 487
Portugués—Pitangus sp ... 154
Porzana ... **395, 396**
bailloni ... 396, 397
carolina ... 177, **629**
erythrothorax ... 396, 398, 399, 401
measurements ... **399**
exquisita ... 401
fusca ... 398, 399
measurements ... **399**
intermedia ... **396**
Japanese species of ... 396
mandarina ... 398, 400
noveboracensis ... 401
parva ... 397
paykulli ... **396**, 399, **400**
pygmæa ... 396, 397
rubiginosa ... 398
undulata ... **396**, 397, **401**
Potamorrhaphis ... **339, 359**
guianensis ... **359**, 361, 530
Potamorrhaphis scolopacina ... 361
species of ... **359**
tæniata ... 359
Potamotrygon ... 557
Potean River fishes taken ... 1, 6
Poule d'Eau (Fulica sp.) ... 629
Pourtalesiæ ... 287
Pourtalesia Jeffreysi ... 287
Preston, J. W ... 248, 249
Priancanthidæ ... 582
of Havana ... 41
Priacanthus arenatus ... 582
catalufa ... 41, 582
cepidianus ... 582
cruentatus ... 582
macrophthalmus ... 41
Priane cancellata ... 213
cancellatus ... 213
oregonensis ... 213
Primavera café—Merlua sp ... 132
chivillo—Merula sp ... 132
—Merula grayi ... 132
—Ridgwayia sp ... 131
Prionites cæruliceps ... 160
Prionodes ... 579
Prionodon cucuri ... 556
Prionotus ... 50, 229, 327
alatus ... **327, 328, 332**, 338
analysis of species of ... **327**
birostratus ... **332, 337, 338**
carolinus ... **328, 333, 338**
evolans ... 327, **331**, 335, **336**, 338, 545
var. lineatus ... 335
horrens ... **331, 336, 337**, 338
japonicus ... **332**, 337, 338
lineatus ... 335
miles ... **331, 336**, 338
ophryas. **228, 229, 330, 334**, 338, 608
palmipes ... 333
pilatus ... 333, 335, 338
punctatus, 50, **328, 332**, 333, 334, 338, 597
type of ... **544, 545**
review of ... **327**
roseus ... 608
new species ... **470**
rubio ... **330**, 332, **334**, 338, 597
new name ... **50**
sarritor ... 336, 338
scitulus ... 28, 50, **329, 333**, 338, 470, 471
stearnsi ... **228**, 229, **330, 335**, 338, 608
stephanophrys ... **329, 334**, 338
strigatus ... **331, 335**, 336, 338
tribulus ... 28, **228, 331**, 332, 333, **336, 337**, 338
Pristididæ ... 556
Pristigaster cayanus ... 561
martii ... 561
phæton ... 561
Pristipoma auratum ? ... 584
melanopterum ... 584
ronchus ? ... 583
Pristis acutirostris ? ... 556
pectinatus ... 26, 556
perrotteti ... 556
Procellaria meridionalis ... **95, 96**

Page.
Procellariidæ of Grenada 632
Prochilus 482
Procyonidæ of Mexico 128
Prognathodes oculeatus 593
Progne chalybea 139
dominicensis **612**
leucogaster 139
Promécocephalos 242
Promecocephalus 231, 233
Prometheus atlanticus 573
Promicrops guasa 40
itaiara 40, 580
Promicropterus 581
Pronotogrammus 475
multifasciatus 475
vivanus 474, 607
Prosipnus chloropterus 40
Protula alba, new species **549**
americana 548
diomedeæ 550
new species **547**
media 548, 549
Pryer, H 116, 642
Psaltriparus melanotis **134**
Psaltrites helviventris 134
melanotis 134
minimus 134
Psarocolius æneus 151
cyanocephalus 152
gubernator 152
gularis 150
pustulatus 150
Psenes 468
Javanicus 577
regulus 577
Psenidæ ? 577
Pseudoboletia indiana 276
Pseudobazis 415
Pseudojulis **56**, 65, **66**, 69
girardi 66
modestus 65
notospilus **66**, 69, 70
Pseudopriacanthus altus 582
Pseudorhombus vorax 602
Pseudoscarus 470, 542, 591
aracanga ? 592
cœruleus 48
diadema 47
lineolatus 47, 591
nuchalis 48
obtusus 48
psittacus 47, 591
sanctæ crusis 47, 591
Psilonotidæ 245
Psilonotus 229, 242, 244, 245
caudacinctus 246, 247
punctatissimus 246
rostratus 246
Psilorhinus morio 153
Psittacidæ of Mexico 163
Psittacula lineola 94
Psittacus autumnalis 163
Pterengraulis otherinoides 562
Pteria (Oxytoma) erecta 252
Pteroglossus prasinus 163

Page.
Pteroglossus torquatus 163
Pterophrynoides histrio 603
Pteroplatea maclura 26, 558
Pteropoda from Turner 203
Ptiliogonys cinereus 139
Ptilogonys cinereus 139
Ptychoramphus aleuticus 656
Ptychostomus albidus 18
Pudding-wife 60
Platyglossus radiatus 59
Pudiano verde 59, 60
Puffers, American species of 230
Puffinus carneipes 655, 656
cinereus 656
creatopus 656
gavia 656
griseus 655, 656
leucomelas 655, 656
tenuirostris 655, 656
Pulmonata from Labrador **202**
Pupa borealis 203
decora **203**
Hoppii 203
Pupilla arctica 217
decora 217
Purpura crispata 215
Freycinetti 215
lapillus **215**
lima **215**, 218
Pusa erroneously applied 62
grandisquamis 63
radiata 62
Putnam, F. W 3, 508
Putorius brasiliensis frenatus 129
erminea 221
(Galc) brasiliensis frenatus 129
vison 221
Puxacua—Antrostomus sp 158
Nyctidromus sp 158
Pyrango æstiva 140
hepatica 140
ludoviciana 140
Pyrgisomo rubricatum 148
Pyrocephalus mexicanus 154
rubineus mexicanus 154
var. mexicanus 154
Pyroderus, diagnosis of species of 92
grenadensis **93**
masoni **93**
new species **92**
orenocensis 92, **93**
maseni 93
scutatus **92**, **93**
Pyrolofusus 304
Pythonichthys sanguineus 565

Q.

Quadrina 414, 415
Quassilabia lacera 2
Quauhgalitto—Cyanocitta sp 152
Quebranta huesos 168
Quejoso—Saltator sp 141
Querimana gyrans 27, 607
Querquedula circia 655
crecca 655

Page.
Querquedula falcata 655
formosa 655
querquedula 655
Quexque azul—Xanthoura sp 153
Quexquex—Cyanocorax sp 153
Quiscalus luminosus **615**
macrourus 152

R.

Rabirubia de lo Alto—Paranthias sp 39
Genizara—Clepticus genizara 45
—Ocyurus chrysurus 42
Radde, Professor 399
Rafinesque, C. S **339**, **340**, 356
Raja ackleyi 557
Rajidæ 557
Rail, Eastern Water 402
Rails, Japanese Water 403
of Japan 395
Rallidæ of Grenada 629
Japan **395**
Mexico 177
Rallina erythrothorax 400
fusca 399
paykulli 400
Raillites 396
Railus **395**, **402**
aquaticus 402, 403
b japonicus 402
c indicus 402
measurements of **404**
bailloni 396
carolinus 177
elegans tenuirostris 177
var. tenuirostris 177
fuscus 398
gularis 402
measurements of **364**
remarks on **362**, **364**
indicus 363, **402**, 403
measurements of **404**
intermedius 396, 397
japonicus 402, 403
jouyi 402
measurements of **364**
new species **362**, **263**, **364**
minutus 396, 397
paludosus 397
paykulli 400
pectoralis 402
phœnicurus 405
pusillus 396, 397
rufescens 404
striatus 398, **402**
measurements of **364**
remarks on **362**, **364**
sumatranus? 405
Ramier (columba sp.) 624
Ramphastidæ of Mexico 163
Ramphastos carinatus 163
torquatus 163
Ramphistoma 339
vulgaris 340
Ramsay, R. G. W 200
Wardlaw 406

Page.
Rana halecina 197
—Hyla sp 198
—Lithodytes sp 197
marina 198
—Rana sp 197
—Smilisca sp 199
Rangifer tarandus caribou 224
Ranidæ of Mexico 197
Ranita—Hyla sp 198
Ranzani 238
Ranzania truncata 606
Rascacio—Scorpæna plumieri 50
Rascon de agua 177
Rathbun, Richard, Echini catalogued by **255**
papers of 258
on parasitic copepoda **310**
Raton viejo—Artibeus sp 128
—Molussus, sp 127
—Vampyrops sp 128
Rau, Dr. Charles 450
Rays, actinotrichia of 78
rank of 78
Razor-bill 658
Red Grouper, fishes found in 466
Red River fishes taken 1, 13
Red Snapper 534
fishes found in 466
Redstart 611
Reed Bird 616
Reeve 213
Regalecidæ 573
Regalecus gladius 573
Regerhinus uncinatus **622**
Regulus calendula 133
Remiza **374**, 387
consobrina **387**, 389
measurements of **389**
pendulina 388, 389
Remora remora 27, 572
Reniceps 556
tiburo 32
Reptiles of Mexico 182
index to genera of **199**
Retardation in species-making 78
of development 79, 80
Rhabdosma longiceps, new species **189**
mutitorques 189
semidoliatum 189
Rhadinæa decorata 188
Rhamdia 559
Rhinechis deppei 186
Rhinobatidæ 557
Rhinobatus spinosus 557
Rhinoberyx chryseus **39**, 578
Rhinogobius? 499, 595
bucculentus 49, 501, 543
contractus 49, 501
similis 499
Rhinoptera encenadæ, new species **220**
new species of **220**
polyodon 220
Rhombochirus osteochir 572
tetrapturorum 572
Rhomboida alepidota argentea 37
Rhomboidichthys 601

Page.
Rhomboplites aurorubens 42, 583
elegans 42
Rhombus 576
aramaca 602
Rhynchonella psittacea **208**
Rhynchopygus pacificus 287
Rhynchotes 243
Rhynchotus 243, 245
Rhypticidæ 581
of Havana 41
Rhypticus arenatus 581
bistrispinus 581
maculatus 581
nigromaculatus 581
pituitosus 581
saponaceus 41, 581
Richards, Sir George Henry 124
Richardson 246
Ricinus 417
Ridgwayia pinicola **131**
Ridgway, Robert 132, 133, 134, 135, 136, 138, 139, 144, 145, 146, 147, 148, 151, 153, 155, 158, 159, 162, 164, 165, 173, 177
on new Amphispiza **143**
Æstrelata sandwichensis 95
a melanistic Buteo **248**
hybrid Dryobates **521**
Mexican birds **136**
new birds 92
Cyclorbis **519**
Myiarchus **520**
Picolaptes **523**
oyster-catcher 225
Riker, C. B., bird named for **523**
Riley, C. V 417, 423
Ringer 121
F 388
Ring—Ouzel 365, 368
alpine **367**
northern **367**
Ring—Thrush 365
Ring—Thrushes, European 372, 373
Rio Blanco fishes taken 21
Rio Colorado fishes taken 20
Rio Comal fishes taken 1, 23
Rio Lampasas fishes taken 17
Rio Leon fishes taken 18
Rio San Marcos fishes taken 1, 21
Rissa brevirostris 656, 658
tridactyla pollicaris 655, 656
Rissoa arctica 306
castanea 307
(Paludinella) saxatilis 306
proxima 307
striata 307
Rissoidæ 305
Rivulus cylindraceus 564
elegans 564
marmoratus 564
micropus 564
ommatus **527**
Robálo—Centropomus undecimalis 39
Roccus chrysops 12, 14
lineatus **465**

Page.
Roccus saxatilis 465
septentrionalis 465
Rock Bass—Roccus chrysops 14
Rock-sculptures of boats 444, 445
Rodriguez, Señor José 32
Roemer, F 83
on fulgurites 91
Ronco Amarilla—Hæmulon sciurus 42
blanco—Hæmulon acutum 42
Carbonero—Hæmulon carconarium 42
Condenado—Hæmulon flavolineatum 42
Ronco—Hæmulon plumieri 42
Rose, G., on fulgurites 91
Rotula Augusti 285
Rumphii 257
Rowlock figured 444
of Northland boats 443
Rubio volador 50, 334, 545
"Rudiments" defined 80
Rupiscartes atlanticus 599
decoratus 599
margaritaceus 599
nigricans 599
Rupornis magnirostris griseocauda 167
Rüppell 57
"Russian cat"—Leptops olivaris 14
Rutley, F 83
on fulgurites 91
Ruvettus pretiosus 573
prometheus 573
Ryder, John A., on fin-rays of fishes 71
Rygh, O 454

S.

Sabalo—Megalops atlanticus 33
Sabine River, fishes taken 1, 15
Saccostoma 509, 510
gulosum 510
Sainter, on fulgurite 91
Salamandra tigrina 199
Salamandridæ of Mexico 199
Salarias vomerinus 599
Salariichthys textilis 599
Salema—Diplodus unimaculatus 43
Salenia 263
Pattersoni 263
varispina 263
Salenidæ 263
Saline River fishes taken 1, 10
Salmacis globator 277
rarispina 277
Salmon, absorption of fin-fold in 79
Salmonete Amarilla—Upeneus martinicus 43
Colorado—Upeneus maculatus 43
Salmonoids, adipose fin of 72
Salpinctes obsoletus 135
Saltapared alacranero—Campylorhynchus sp 135
armarillo—Euthlypis sp 138
aplomado—Thryothorus sp 136
de barranca 135
monte—Dendrornis sp 156
tular 136
lutado—Thamnophilus sp 156

Page.
Saltapared—Picolaptes sp. 156
Saltator atriceps 141
grandis 141
Salt, T 332
Salvadori 405
Salvin 613
Osbert 131
Samia **416, 418**, 422, 423, 224, 426, 427
atlas 416
cynthia 416
euryale 426
Sandpiper, Pectoral 628
Small 628
Spotted 628
Stilt 628
Sand-shark 310, 313, 315, 316
Sardina de España—Clupea pseudohispanica 33
de Ley—Clupea sardina 33
Escamuda—Clupea clupeola 33
Sardinella 561
Sardinia 561
Sargento—Phalacrocorax sp 169
Sargo Raiado—Diplodus probatocephalus 43
Sargus 585
argenteus, type of **538**
aries, type of **538**
ascensionis, type of **538**
caribæus 43, 585
caudimacula 538, 585
fasciatus, type of **539**
flavolineatus 585
type of **538**
lineatus, type of **539**
rondeletii 585
Sarothrodus amplexicollis 593
bimaculatus 48
maculocinctus 593
Sars, G. O 297, 300, 301, 306, 307
Saetre—Psaltriparus sp 134
Saturnia 416, 421, 422, 423, 426, 427, 428, **428**, 429, **430**, 431, 432, 434
galbina 430, **431**
Saturniidæ **414**
revision of **414**
Saturniinæ **414, 427**
Saurida 526
Saurophagus derbianus 154
Saurus atlanticus 526, 563
gracilis **526**
griseus 526
intermedius 526, 563
lacerta 526
synodus 526
types of **525**
varius 526
Sauvage, Dr 535
Saxicava arctica **207**
pholadis 216
rugosa 216, 218
Say 310
Sayornis nigricans 154
phœbe 154
sayus 154
Scaphirhynchops platyrhynchus 14

Page.
Scardafella inca 175
Scartella marmorea 599
microstoma 599
new genus and species **50**
trucata 599
vincta 599
Scarus 32, 470, 542, 591
abildgaardi 47
aracanga 591
bollmani, new species 470
brachialis 47
catesbæi 591
cœruleus 48
cœlestinus, type of 543
croicensis 47, 469, 542
Cuban species of 45
diadema 47, 591
evermanni, new species **469**
flavescens 590
frondosus 591
type of **542**
grathodus (?) 592
guacamaia 48, 543, 592
hoplomystax 591
lateralis 47, 591
miniofrenatus 47, 591
nuchalis 591
obtusus 591
oxybrachius 47, 591
punctulatus 47, 470
quadrispinosus, type of **542**
rubripinnis 591
spinidens 591
squalidus 47, 591
superbus 591
tæniopterus **47**
tpye of **543**
truncatus (?) 591
turchesius 592
type of **543**
virens (?) 591
virginalis 47, 470, 543, 591
viridis 591
Scaup, Large 659
Sceloporus æneus 193
formosus 193
gracilis 193
gracious 193
grammicus 192
var. a 193
gratiosus 193
microlepidotus 193
scalaris 194
spinosus 193
torquatus formosus 193
variabilis 194
Schieffelin & Co., cinchona barks from 438
Schizaster canaliferus 291
fragilis 291
Orbignyanus 292
Schizoplax brandtii 217
Schlegel 398, 399, 407, 408, 659
Schleuter 303
Schlüter, ——, Picus from 108
Herr W 365, 366, 371, 372

Page.
Schomburgk 360
Schöpf 352
Schott, A 519
Schrenck 213
Sciæna armata 587
chrysura 28
lineata 465
maculata 482
magdalenæ 587
microps 587
monacantha 587
ocellata 28
ronchus 44, 587
rubella 587
stellifera 540, 587
subæqualis 587
surinamensis 587
Sciænidæ 586
of Havana 43
Mexico 196
Scirtetes 410
Sciuridæ from Alaska 223
of Mexico 129
Sciurus aureogaster 129
graminurus 129
variegatus 129
Sclater, P. L 131, 610, 613
Scolecophagus cyanocephalus 152
Scoliodon 556
porosus 32, 556
Scolopacidæ of Grenada 628
Mexico 178
Scolopax alba 171
delicata 178
guarauna 171
melanoleuca 178
Scomber colias 574
kleini 531
Scomberesocidæ 568
of Havana 35
Scomberomorus cavalla 36, 574
maculatus 27, 36
regalis 36, 574
Scombridæ 574
of Havana 36
Scombrops oculatus 586
Scopelidæ 563
Scorpæna brasiliensis 596
type of **545**
calcarata 545, 596
castor 596
grandicornis 50, 545, 596
inermis 596
type of **545**
occipitalis 545, 475, 596
plumieri 50, 596
rascacio 50, 596
scrofina, type of **545**
stearnsi 596
Scorpænidæ 596
of Havana 50
Scoters 659
Scoter, Surf 659
Scully, Mr 404
Scutellidæ 282

Page.
Scyllidæ of Havana 32
Scylliorhinidæ 555
Scyllium, Parapoid structures in 74
Scyris analis 37, 575
Sea-birds, distribution of 653
peculiar to American coast 653
remarks on 657
Seal, Fur 222
Sea Robins, review of 327
Seebohm 109, 110, 111, 115, 119, 200, 365, 380, 382, 384, 388, 389, 394, 408, 610, 645, 657
Seed-eater, Black-face 614
See-see, Black 612
Blue-black Grass 615
Red-throat 614
White-beak 614
Yellow 613
Zerbe 614
Sciurus motacilla 136
nævius **611**
Selene vomer 27, **37**, 575
Selenites cælata figured 461
new species **460**
Duranti **460**
figured **461**
note on 460
Selys Longchamps 201
Semotilus biguttatus 4
Sennett, G. B 132
Señorita—Oxyjulis californicus 65
Seriola bonariensis 532, 576
coronata 576
dubia? 576
dumérili 576
falcata 532, 576
fasciata 532, 575
gigas? 576
ligulata 576
proxima 576
rivoliana 576
type of **532**
semicoronata 576
zonata 576
carolinensis 576
Seriolichthys 576
Serpentario—Spizaetus sp 167
Serpula dianthus 549
gigantea 551
stellata 551
Serpulidæ from the "Albatross" 547
Serranidæ 579, 607
of Havana 39
Serrano—Serranus formosus 39
Serranus angustifrons 580
apua 581
atrarius 27, 468, 469, 533
atrobranchus 533
bivittatus? 579
brasiliensis 533, 579
dispilurus **27**, 533
fascicularis 579
flavescens 579
flavolimbatus 532
formosus 39
fusculus 579

Page.
Serranus jacome 579
lucio percanus 579
niveatus **532**
ocyurus, new species **468**
phœbe **27**, 39, 532, 579
præstigiator 579
rufus 533
tabacarius **39**, 579
tigrinus 579
trifurcus 468
undulosus, types of **532**
Seal de lo Alto—Lutjanus sp 41
Setophaga lacrymosa 138
miniata 137
rubra 138
ruticilla 611
S. Gabrielito—Pyrocephalus sp 154
Sharpe, R. Bowdler 294, 295, 296, 643, 649
& Dresser 114
Shark, Atwood's 310, 312, 314, 315
Dusky 316
Sharks, actinotrichia of 72
Shearwater 658
Sheep, Dall's 224
Shell, new California **460**
Shi-jiû-kara 376
Shima-o-naga 386
Ships for burial purposes 449
Ship tomb 458
Shrew, Forster's 222
Shufeldt, Dr. R. W 495
Sialia azurea **133**
sialis 133
Sibon annulatum 183, 198
annulatus 183
frenatum, new species **184**
personatum 184
Sicyases 597
Sicydiops 485
Sicydium **479**, 484
antillarum? 484, 485, 595
gymnogaster 485
plumieri **484**, 517, 595
salvini 485
siragua 484, 595
Sicyopterus **479**, 485
analysis of species of **485**
gymnogaster **485**, 517
salvini **485**, 517
stimpsoni 485
Sidera aterrima 565
conspersa 566
elaborata 566
flavoscripta 565
funebris 565
maculipinnis 566
miliaris 566
moringa **34**, 566
nigrocastanea 565
nigromarginata **473**, 606
obscurata 565
ocellata 34, 473, 474, 566
polygonia 565
sanctæ-helenæ 566
umbrosa 565

Page.
Sidera variegata 566
vicina **34**, 565
Sierra Serrucho—Scomberomorus cavalla 36
Sierrita 349
Siete colores—Passerina sp 142
Siganus 48
Siliqua patula 218
Siluridæ 558
Simorhynchus cristatellus 655, 656
pusillus 655, 656
pygmæus 655, 656
Sipho lividus 205, 215
martensi **302**
Siphonaria thersites **210**, 217
Siphostoma affine 569
ascendens 570
brachycephalum 570
cayennense 569
crinigerum 570
elucens 569
fistulatum 569
flavirostre 570
floridæ 30
Jonesi 569
linea 570
louisianæ 30
mackayi **225**, 229
marmoreum 570
miurum to be suppressed 225
pelagicum 569
picturatum 570
rousseani 569
zatropis 570
Sitta **374**, **389**, 391
albifrons **390**, 393
amurensis 389, **390**, 392, 393
albifrons **390**, **393**
clara **390**
new subspecies **392**
measurements **391**
baicalensis **390**, 391
cæsia 113
clara 393
europæa 113, 389, 390, 391, 392
measurements **391**
subsp. uralensis 390, 392
rosellia 390, 392
sericea 393
sibirica 392
uralensis 389, 392, 393
Sittasomus olivaceus 156
Sittiparus 374, **375**
Siurus motacilla 13
Skates, actinotrichia of 72
Skibssætninger (boat-shaped burial groups) **446**
Skuas 660
Slaweek stone boat 447
Slippery Dick—Platygloassus bivittatus 63
Sloan 37
Smaragdus 7
costalesi 496, 596
stigmaticus 496
valenciennesi 497, 596
Smilisca baudini 199

Page.
Smith 121
E. A 297
John B., on Saturniidæ **414**
Prof. S. I. 310
Rosa 511
on a new Rhinoptera **230**
Snapper, Red 334
Snipe, Wilson's 628
Snow, Mr 393
Professor 436
Prof. Hy 415
Sobaco—Balistes macrops 54
Socorro Elf Owl **166**
Sulariom wallalense 252
Solea browni 602
Soleidæ of Havana 53
Solemia bilex 252
Soleotalpa unicolor 603
Somateria spectabilis 659
v-nigra 659
Söndmöre boat **443**
Sora Rail 629
Sorex Forsteri 222
Soricidæ from Alaska 222
Sour-sop Bird 613
Spangenberg, Dr 530
Sparidæ 607
of Havana 41
Sparisoma abildgaardi 47, 591
aracanga 591
atomarium 591
aurofrenatum 47, 591
brachiale 542, 591
chrysopterum 47
chrysopterus 591
circumnotatum 591
Cuban species of 45
cyanolene 607
emarginatum 591
flavescens 47, 542, 591
frondosum 47, 542
hoplomystax 591
lorito 47, 55, 591
radians 591
viride 591
xystrodon 47, 55, 591
Sparus mormyrus 585
pagrus 356, 607
radiatus 60, 63, 64, 70
Spatangidæ 287
Spatangina 288
Spatangus purpures 288
Raschi 288
Spatula clypeata 655
Species, origin of 78
resulting from stable equilibrium 78
Spelerpes bellii 199
Spermophila gutturalis **614**
torqueola 142
Spermophile, Parry's 224
Spermophilus empetra **224**
grammarus 129
mexicanus 129
Sphærechinus granularis 257, 276
pulcherrimus 257, 276

Page.
Sphæroides **230**, **231**, **232**, 233, 239, 242, 243, 247
analysis of species of **234**
angusticeps **234**, **236**, 247
annulatus 235, 239, 241, 247
formosus **235**, **240**, 241, 247
fürthi **234**, **236**, 247
maculatus **235**, 238, 247
pachygaster **234**, **235**, 236, 247, 605
politus **235**, **239**, 240, 241, 247
Spengleri **54**, **234**, **237**, 238, 239, 247, 605
testudineus 54, **235**, **535**, **239**, 241, 247, 605
trichocephalus **234**, **235**, **236**, 247
tuberculatus 233, 237, 238, 247
tuberculé 233
turgidus 239
Sphagebranchus 566
rostratus 566
Sphenocercus formosæ 637, 639
Sphenoproctus curvipennis 156
Sphyræna 339
acus 355, 356, 568
barracuda 572
borealis 27
guaguche 36
guachancho 572
picuda 36, 572
picudilla 36, 572
sphyræna 572
Sphyrænidæ 572
of Havana 36
paper on 36
Sphyrænops bairdianus 586
Sphyrapicus varius 159
Sphyrna tiburo 26, 32, 556
tudes 556
zygæna 26, 556
Sphyrnidæ 556
of Havana 32
Spilotes auribundus 185
corais 185
erebennus 185
subspecies erebennus 185
erebennus 185
pullatus auribundus 185
salvini 185
Spinax 555
hillianus 555
Spines of fishes, development of 75
Spinites atrigularis 144
Spinus notatus 149
spinus **651**
Spirobranchus dendropoma **553**
giganteus **531**, **552**, **553**
incrassatus **552**
Spizaetus ornatus 167
Spizastur melanoleucus 167
Spiza versicolor 142
Spizella atrigularis **144**
socialis 144
Spondias 618
Spoonbill, Roseate 627
Sporophila torqueola 142
Spring Creek fishes taken 20

Page.
Squalidæ 555
Squalus acanthias 555
canis ? 310
punctatus 32, 556
tiburo 555
Squirrel, Red 223
Stagnicola 406
minor 406
septentrionalis 406
Starik 524
Stathmonotus hemphilli 608
Stearns, Prof. R. E. C., Echini from 256
Silas .. 28, 64, 246, 327, 334, 335, 466, 467, 470, 471, 482
described fulgurites 84
fishes from 225
sent fulgurities 83, 84
Steenstrup 297
Steganopus tricolor 178
Steindachner, Dr. Franz 48, 60, 69, 236, 349, 360, 497, 509, 513, 530, 592
Steinegeria, new genus **467**
rubescens 607
new species **467**
Stégmatogobius 487
Stejneger, Dr. Leonhard ... 102, **130**, 133, 209, 216, 219, 297, 402, 652, 653, 654, 657, 658, 659, 660
genus named for 468
on British marsh-tit **200**
on European thrushes 365
on Japanese Woodpeckers .. **99**
on Japanese Tits **374**
on Japanese Rails **395**
on Liu Kiu Islands birds **634**
on Rallus species. **362**
on species of Pardalotus **294**
on synthliboramphus **524**
proposed guide to Japanese birds. 101
Stelgidopteryx fulvipennis 139
serripennis 139
Stelliferus 540, 587
stellifera 540
Stenogobius 487
Stenometopes 242, 233
Stenostoma macrolepis 183
phænops 183
Stenostomidæ of Mexico 183
Stenotomus caprinus 607
chrysops 27
Stephens 380
Stephenson, Mr 449
Stercorarius buffonii 655
crepidatus 655
longicaudus 655
parasiticus 655
pomarinus 655
Sterna aleutica 656

Page.
Sterna anæthetus **632**
camtschatica 655, 656
dougalli **632**
elegans 656
fuliginosa **632**, 655
longipennis 655
macrura 660
maxima 179, **632**
melanauchen 656
minuta 660
paradisea 660
pelecanoides 656
sinensis 655, 656
surinamensis 179
Stevardia albipinnis 560
riisei 560
scarlesi. 560
veedoni 560
Stimpson, Wm 206
Dr. Wm 213, 275, 548
Echini from 256
Stizostedion canadense 8
vitreum 8
Stomatodon narinari 26, 558
Stolephoridæ 562
Stolephorus argyrophanus **525**, 562
browni 26, 33, 562
chœrostomus 562
cubanus 562
eurystole 525, 562
mitchilli 562
perfasciatus 33, 562
productus 562
ringens 525
spinifer 562
surinamensis 562
Stomiatidæ 563
Stomopneustes variolaris 271
Stoney, G. M 297
Storeria dekayi 187
Strecker, Mr 425
Strepsilas interpres 627
Strepsilidæ of Grenada 627
Streptophorus bifasciatus 186
sebæ 187
Strigidæ of Grenada 621
Mexico 163
Strix accipitrina 164
flammea var. guatemalæ 164
nigrescens **621**
guatemalæ 164
phalænoides 164
pratincola **163**, **164**
Stromateidæ 576
Stromateus alepidotus 576
orbicularis 576
paru 576
triacanthus 27
Strombella **303**, **304**
callorhina, var. stejnegeri **215**
var. stejnegeri 218
Strongylocentrotus albus 271
depressus 257, 271
Dröbachiensis ... 257, 259, 271, 272, 273, 275

Page.
Strongylocentrotus eurythrogrammus 257, 273
franciscanus 273, **274**
gibbosus..... 273
globulosus 257, **274**
intermedius 257, 274
lividus..... 274
mexicanus 274
nudus.....257, **274**
purpuratus 257, 273, **275**
tuberculatus.....257, 275
Struthers 80
Struthus atrimentalis 144
Sturnella magna mexicana..... 152
var. mexicana 152
mexicana 152
Sturnus holosericeus 149
obscurus 151
Stygicola dentata 600
Stylephoridæ 573
Stylephorus chordatus 573
Suckley, Geo..... 524
Sucrier..... 613
Sudis intermedius..... 562
Sula cyanops..... **631**
fiber?..... 631
fusca?..... 631
leucogaster..... 655
parva?..... 631
piscator.....**630**, **631**
sula.....**630**, 655
Sumichrast, F 144
Sundevall 103, 118
Swain, Joseph 40, 47, 225
collected fishes..... 1
on Cuban scaroids..... 45
papers by..... 41
Swainson.....57, 66, 231, 242, 245
Swallow, Mountain..... 620
Purple..... 612
Rufous-belly..... 612
Swan..... 658
J. G., Echini from..... 256
Swift, collared..... 620
Swinhoe, R.....103, 107, 114, 115, 363, 376, 388, 394, 399, 400, 406, 635, 650, 656, 658, 660
described Japanese birds..... 100
Sylvania pusilla..... 137
Sylvia auduboni..... 137
komadori..... 644
Sylviidæ of Mexico..... 133
Symbranchidæ 565
Symbranchus marmoratus..... 565
Symphemia semipalmata..... 628
Synetheres mexicanus..... 136
Syngnathidæ..... 569
of Havana..... 35
Syngnathus albirostris?..... 570
heckeli..... 570
jonesi 569
martinicensis..... 570
tenuis 570
Synodontidæ 563
of Havana..... 34
Synodus 339, 542
anolis 526, 563
Synodus cubanus..... 563
fœtens.....26, 526, 563
intermedius.....34, 526, 563
longirostris..... 526
myops 34, 563
poeyi..... 563
new species..... **526**
ruber..... 526
saurus.....526, 563
spixianus 34, 526, 563
synodus.....526, 562
Synthliboramphus antiquus.....524, 655, 656, 657
wumizusume 655, 656
status of.. **524**
Syrnium virgatum..... 164

T.

Tachyrhynchus erosa 218
Tacitus..... 451
Taczanowski, L.....389, 393, 397, 401
Tadorna casacra..... 655
cornuta..... 655
rutila..... 655
Tænioides 512
Tæniophis imperialis..... 187
Tæniura duméril 557
hystrix 557
magdalenæ..... 557
motoro 557
Tagarote—Tantalus sp..... 171
Tamboril 232
Tambor—Sphæroides testudineus..... 54
Tanagra abbas..... 140
cyanea..... 142
grandis 141
jacarina..... 142
ludoviciana..... 140
(Saltator) atriceps..... 141
Tanagridæ of Grenada..... 613
Mexico..... 140
Tancredia americana..... 252
Tantalus loculator 171
Tantilla calamarina 189
Tapaya orbicularis..... 194
Tapes diversus..... 216
staminea 216, 218
Tatusia novemcincta..... 130
Taxonomy, embryological characters in... 81
Teal, Blue-wing..... 630
Tecolotillo—Glaucidium sp..... 164
Tecolotito amarillo..... 164
Micrathene sp..... 165
Tegima, S.....634, 648
lent Dryobates 117
Teiidæ of Mexico..... 195
Telea.....**428**, **429**
polypheme 430
polyphemus **430**
var. oculea..... 430
Teleostei, actinotrichia of..... 72
adipose fins of..... 72
radial development in 74
Temminck 397, 406
Japanese birds described by... 99
Temnechinus maculatus..... 276

Page.
Temnopleuridæ 276
Temnopleurus Hardwickii 257, 276
Reynaudi 257, 276
toreumaticus 257, 276
Tempestad—Sialia azurea 133
Tennessee basin fish wealth 25
Tepper, Mr 422
Terebella stellata 551
Terebratula meridionalis 250
subexcavata 251
subtetraëdra 251
Tern, Bridled 632
Noddy 632
Roseate 632
Royal 632
Terns 660
Testudo imbricata 197
Tetragonopterus brevoortii 560
pulcher 560
tæniurus 560
unilineatus 560
Tetraodon **230**, 231, 233, **241**, 242, 243, 247
analysis of species of **243**
bajacu 240, 247
erethizon **243**, **244**, 247
fahaka 242
lævigatus 247
lineatus 241, 242, 243
testudineus 239, 247
Tetraodontidæ 605
review of 230
Tetraonidæ of Mexico 176
Tetrapturus albidus 573
amplus 573
Tetrodon 230, 231, 233, 241, 242, 243
ammocryptus 246, 247
angusticeps 236, 247
annulatus 240, 247
capistratus 246, 247
caudacinctus 246
(Cheilichthys) pachygaster 235, 247
curvus 232, 247
formosus 240, 247
fürthi 236, 247
geometricus 240, 247
heraldi 240, 247
hispidus var 238
var maculatus 238, 239, 247
lævigatus 232
lagocephalus 231, 232
lineolatus 232. 247, 605
marmoratus 237, 247
mathematicus 232, 247
nephelus **54**, 237, 238, 247, 605
ornatus 229, 246, 247, 605
oxyrhynchus 246, 247
pachycephalus 232, 247
pachygaster 235
plumieri 237, 238, 247
politus 239, 247
psittacus 244, 247
punctatissimus 246, 247
punctatus 54, 239, 240, 247, 605
reticularis 240
rostratus 245, 246, 247
Tetrodon spengleri 233, 237, 238, 247
testudineus 240
annulatus 240
trichocephalus 236, 247
turgidus 30, 54, 237, 238, 247, 605
Tetrodontidæ 233, 241
of Havana 54
Tetrodontinæ **230**
Teuthis **48**
hepatus 48
javus 48
Texas fishes 15, 16, 17, 20, 21, 23
taken 1
rivers poor in fish 25
Thalassidroma monorhis 556
Thalassoma **56**, 65, **66**, 67, 69
bifasciatum **67**, **68**, 69, 70, 540, 590
lucasanum **67**, 69, 70
melanochir **67**, **68**, 69, 70
nitidum **67**, **68**, 69, 70, 590
purpureus 66
Thalassophryne maculosa 598
Thamnophilus doliatus 156
Thamnophis scalaris 186
Theobroma 610
Tholichthys 593
Thominot, M. Alexandre 525, 536
Thrush 609, 610
Water 611
Thrushes, two European 365
Thryothorus bairdi 136
bewickii bairdi 136
grenadensis **611**
Thriponax 123, **124**
richardsi 124
Thrysites niger 573
scholaris 573
Thryscoidea concolor 565
flavopicta? 566
Tiaris pusillus 142
Tigrisoma cabanisi 170
Tiguerillo—Habia sp 141
Tijereta—Milvulus sp 155
Tildio—Ægialitis sp 178
Tilmatura duponti 157
Timucu 352, 353, 529
Tinamidæ of Mexico 180
Tinnunculus sparverius caribbæarum **692**
Tiñosa—Caranx lugubris 36
Tit, Coal 377
Eastern Penduline 387
Formosa 375
Japan 375
Japanese Long-tailed 384
Lesser 376
Long-tailed 383, 386
Penduline 388, 389
Tits of Japan **374**
Tityra personata 156
Tlacoatzin—Didelphis sp 130
Tlaconeto—Spelerpes sp 199
Tlacuache—Didelphis sp 130
Toad-fish 233
Todos Santos Bay, new Rhinoptera from 220
Toluca lineata 188, 189

Page.
Tonicella marmorea ... 217
submarmorea ... **210**, 217
Tordo capitan—Agelaius sp ... 151, 152
de ojo amarillo—Scolecophagus sp ... 152
de pecho amarillo—Xanthocephalus sp ... 152
Dives dives ... 152
gallito—Molothrus sp ... 151
negro chico—Molothrus sp ... 151
Molothrus sp ... 151
Torellia ... 214
Toro—Ostracion tricorne ... 54
Torpedinidæ ... 557
Torpedo bancroftii ... 472
brasiliensis ... 472
occidentalis ... 557
pictus ... 472
Torquilla ... 102
Tórtola comun—Zenaidura sp ... 174
Tortuga—Cinosternon sp ... 197
de carey ... 197
Totocalca—Aramides sp ... 177
Totanus flavipes ... **628**
melanoleucus ... 178, **628**
Tourterelle (Zenaida sp.) ... 624
Toxocidaris globulosa ... 274
nuda ... 274
Toxopneustes maculatus ... 278
pileolus ... 278
semituberculatus ... 278
variegatus ... 279
Trachinocephalus brevirostris ... 34, 563
Trachinotus argenteus, type of ... **531**
carolinus ... 531
cayennensis ... 575
type of ... **531**, **532**
falcatus ... 575
glaucus ... 575
ovatus ... 531
paitensia, type of ... **531**, **532**
rhodopus ... 532, 575
rhomboides ... 575
Trachurops crumenophthalmus ... 36, 574
plumieri ... 36
Trachurus picturatus ... 574
trachurus ... 474, 574
Trachydermon ruber ... **210**, 217
Trachynotus carolinus ... 27, 38
rhodopus ... 38
rhomboides ... 27, **38**
Trachypteridæ ... 572
Trachypterus trachyurus ... 572
Trachyradsia aleutica ... 217
Treron formosæ ... 637, 638, 639
permagna, new species ... **637**, **638**, **639**
sieboldii ... 639
sororia ... 637
sororius ... 639
Triacanthidæ ... 604
Trichidion plumieri ... 36
Trichiuridæ ... 573
Trichiurus lepturus ... 27, 573
Trichopicus ... 108
Trichotropis insignis ... **214**, 218
solida ... **214**

Page.
Trifarcius ... 564
Trigla carolina ... 50, 332, 333, 336, 337, 338, 545
evolans ... 336, 338
lineata ... 335, 336, 338
palmipes ... 333, 338
punctata ... 50, 332, 338, 545
strigata ... 335, 338
tribulus ... 336
Triglidæ ... 596, 608
of Havana ... 50
Trigonocidaris albida ... 277
Triguero—Piranga sp ... 140
Trimorphodon collaris ... 184
Tringa himantopus ... 178
Trinity River fishes taken ... 1, 16
Triplechinidæ ... 277
Tripsurus ... 120
Triquero grande—Aimophila sp ... 145
Trisotropis aguaji ... 40
bonaci ... 40
brunneus ... 40
camelopardalis ... 39
cardinalis ... 40
microlepis ... 580
petrosus ... 40
stomias ... 580
reticulatus ... 580
Tristram ... 124
Triton cancellatum ... 213
oregonense ... 212
Tritonium cancellatum ... 212, 213, **214**
(Lagena) oregonense ... 213
oregonense ... **212**, 213, **214**, 218
scaber ... 213
viridulum ... 298
Tritonofusus Kroyeri ... 218
Trochidæ from Labrador ... 206
Trochilidæ of Grenada ... 619
Mexico ... 156
Trochilus colubris ... 157
curvipennis ... 156
eliza ... 157
fulgens ... 157
hemileucurus ... 157
mariæ ... 158
thallassina ... 157
Trochus helicinus ... 206
(Oxystele) euryostomus ... 252
Troglodytes brunneicollis ... 136
obsoleta ... 135
Troglodytidæ of Grenada ... 611
Mexico ... 135
Trogon ambiguus ... **161**
citreolus ... 162
elegans ... 162
mexicanus ... 161
Trogonidæ of Mexico ... 161
Trompeta—Fistularia tabaccaria ... 35
Tropea ... 429
luna ... 429
Trophon ... 302
calcarea ... 308
coronatus ... 303
craticulatus ... 303
Dalli ... 302

Page.
Trophon edentula 308
goodridgii 303
lata 308
maltzani 303
multicostatus 209
muriciformis **302, 303**
orpheus 303
stuarti 303
tenuisculptus 303
truncatus 215
Tropic Bird 631
Tropidichthys 245
Tropidinius 535
arnillo 42
dentatus 42, 535
Tropidodipsas fasciata 183
Tropidonotus dekayi 187
mesomelanus 186
rhombifer 186
True, F. W 129
identified mammals **127**
on Alaskan mammals 221
new genus of moles 97
Dipodomys **409**
Trygonidæ of Havana 33
Tryon 213, 302, 460, 461
Tune ship **454**
Tucán de cuello amarillo 163
pecho rojo 163
verde 163
Turco—Momotus sp 160
Turdidæ 644
of Grenada 609
Mexico 131
Turdinæ 644
Turdus alpestris **365, 366**, 368, **369, 370**, 371, 373
measurements of **372**
aonalaschkæ auduboni 131
auduboni 131
carribæus 610
flavirostris 132
grayi 132
gymnophthalmus **610**
migratorius 132
motacilla 136
naumanni **609**
nigrirostris **646**
oculo radiato 59
pilaris 370
pinicola 131
polyglottos 132
propinquus 132
torquatus **365, 366, 368**, 369, 370, 371, **372**
measurements of **372**
tristis 131
virens 138
Turner, L. M 205, 297
mollusks of **202**
Turnicoideæ 635
Turnicomorphæ 635
Turnix blakistoni **635**
ocellata 635
plumbipes 635

Page.
Turnix pugnax 635
rostrata 635
taigoor 635
Turnstone 627
Turritella erosa 212
polaris 212
(Trachyrhynchus) erosa **212**
Tuza—Geomys spp 129
Twa-oo (Sterna sp.) 632
Tweeddale, Lord 399
Tylosurus **339**, 341, **342**, 342, 358, 359
acus **344**, 354, **355, 356**, 357, 361, 529, 568
almeida **344**, 351, 352, 353, 360 **530**, 568
amazonicus **343, 349**, 360
ardeola 568
ardeolus **343, 349**, 360
brasiliensis 360
cantraini 342, 355, 356, 568
caribbæus 26, **345**, 355, 356, **357**, 361, **529**, 568
crassus 353
diplotænia **343, 348**, 360, 568
euryops 35, **343, 347, 348**, 360
exilis **344, 349**, 360
fodiator **344, 353**, 361
galeatus 342, **354**, 361, 568
gladius 353, 354 568
guianensis 359
hians 26, 35, 341, **345, 357, 358**, 361, 568
imperialis 342, 355, 356, 361
measurements of **357**
longimanus 361
longirostris 351
marinus 26, **344**, 350, **351**, 352, 353, 360, 529, 530
microps **343, 349**, 360, 568
nominal species of 361
notatus 35, **342, 345**, 348, 352, 354, 360, 568
pacificus **344, 355**, 361
raphidoma 35, 342, **344**, 350, **353**, 355, 356, 358, 361, 529, 568
sagitta 346, 347, 348, 568
scapularis **342, 346**, 360
sierrita 349
species of **342**
subtruncatus **343**, 347, 349, **346**, 352, 353, 360, 529, 568
stolzmanni **344, 349**, 360
Tyntlastes **481, 511**
brevis **511, 512**, 518
sagitta **511, 512**, 518
Typhlogobius 477, **481, 510**
californiensis 510, **511**, 518
skeleton of 515
Tyrannidæ of Grenada 616
Mexico 154
Tyrannula cinerascens 155
nigricans 154
Tyrannus borealis 155
couchii 155
crassirostris 155

Page.
Tyrannus melancholicus **618**
couchii 155
var. couchii 155
rostratus **618**
vociferans 155

U.

Uaru 48, 592
Ulocentra histrio 9
Umbrina broussonneti 588
coroides 588
gracilis 588
type of **539**
martinicensis, type of **539**
Ungava Bay mollusks **202**
Unio 252
condoni 254
priscus 253
vetustus 253
Upeneoides parvus 586
Upeneus balteatus 539, 586
flavovittatus 539, 586
maculatus 43, 586
martinicus 43, 586
type of **539**
parvus 939
punctatus 586
Upsilonphorus y-græcum 28, 598
Upupidæ of Japan **102**
Upupoideæ of Japan **102**
Uranichthys brachycephalus 566
Uranidea richardsoni 6
Uranomitra cyanocephala 158
Uranoscopidæ 598, 608
Uranoscopus occidentalis 598
Uraspis 575
Urechinus narestanus 287
Uria lomvia arra 655, 656
troile californica 655, 656
Uribaco 585
Urinator adamasii 655
arcticus 655
lumme 655
pacificus 656
septentrionalis 655
Urolophus torpedinus 33, 557
Uropsophus triseriatus 191
Urotrichus 97, 98
talpoides 97
measurements of 98
Urraca—Quiscalus sp 152
Ursidæ from Alaska 221
Ursus americanus **221**
cinnamoneus 221
Urubitinga anthracina 167
U. S. Coast Survey Echini 255
Fish Commission, Annelids taken by. 547
Echini 255
fishes collected for .. 1
National Museum, fishes collected for 1
Uta bicarinata 192

V.

Vaca—Hypopiectrus indigo 39
Vaquero de huerta—Playa sp 162
Vaquero de monte 168
Vaillant, Dr. L 39, 525
Valenciennes 47, 68, 227, 360, 530, 545
Valoncito—Parus sp 134
Vampyrops lineatus 128
Vaqueta de dos colores—Holacanthus tricolor 48
Eques punctatus 43
Varia 434
Velutina conica, new species **305**
cryptospira 211, 218
Venerupis petitii 216
Venezuela, new birds from 92
Verdin aplomado—Regulus sp 133
calandria—Spinus sp 149
de antifaz—Geothlypis sp 137
cabeza negra—Sylvania sp 137
cola amarilla—Dendroica sp 137
moño colorado 133
toca amarilla—Dendroica sp 137
ocotero de toca amarilla 137
rayado del sauce 136
Verdugo—Cyanocitta sp 152
Verilus sordidus 42, 583
Verrill, Prof. A. E 210, 216
Echini papers of 258, 259
Verrugato—Micropogon fournieri 44
Vespertilio lucifugus **222**
perspicillatus 128
Vespertilionidæ from Alaska 222
Vessel burial 449
"Vestiges" defined 80
Viajaca—Astronotus tetracanthus 48
Vieja—Sparisoma spp 47
Viellot 397
Viking antiquities 457, 458
barrows 458, 459
chair 458
implements 459
kitchen utensils 458
naval architecture 454
ship frames 454
keel 454
mast 455
planks 454
rudder 455
tomb 458
Vinciguerra, Dr. Decio 225, 340, 342
Vireonidæ of Grenada 611
Mexico 138
Vireosylvia calidris, var. dominicana **611**
Vitrina exilis 217
Viuda—Tityra sp 156
Viverra caudivolvula 128
Vivora azul—Hapsidophrys sp 185
cornuda 190
de barriga amarilla 183
cabeza de perro 183
cascabel 191
Erythrolamprus sp 187
gris 187
Drymobius sp 185
parda 187, 188
Volatinia jacarina 142, **615**
Volutharpa ampullacea **215**, 218

Page.
Volutopsis 303
Volutopsius 303, 304
Vomer dorsalis 575
setipinnis 27, **37**, 575
vomer **37**
Von Maltzan 297
Martens 297
Voraz—Aprion macrophthalmus 42
Vulpes fulvus decussatus 221
Vultur atratus 168
papa 169

W.

Wagner 409, 410
Walden, Lord 406
Walker, Mr. 429
S. T., sent fulgurites 90
Wallengreen 201
Washita River, fishes taken 1, 10
fish wealth 25
Water-birds of Japan **652**
distribution of **655**
cock (Gallicrex sp) 404
fowl, Red-head 629
hen, White-breasted 405
Thrush 611
Wells, John Grant 618, 623, 62
on Grenada birds **609**
Westerlund, Dr. 209, 219
West Indian fishes, supplementary list of. **606**
Indies, birds of Grenada **609**
fishes of **554**
Whales, loss of hind limbs in 80
Whitely, Mr. 114, 115, 660
Japanese birds of 99
White River, fishes taken 1
region described 1
Wichmann, A. 83
analyzed fulgurites 86
on fulgurites 85, 87, 88, 91
Withering, William, on fulgurites 90
Willet 628
Woodhouse, Dr. S. W. 409
Woodpecker, Gould's 112
Gray-headed Green 106
Great Black **124**
Great Spotted 109, 110, 111
Great White-backed 119
Japan Green 105
Lesser Spotted 119
Pygmy 120, 122
White-backed 114, 115
Yesso Green 106
Woodpeckers, genera of Japanese **104**
of Japan 99, 102, **104**
white-backed, from Japan. **115**
Worthen, Mr. 12
Wren 611
Wryneck, Japanese 103
Wrynecks of Japan 102
Würdemann, Gustav 473

X.

Xanthichthys cicatricosus 604
ringens 604
Xanthocephalus xanthocephalus 152
Xanthomus bullockii 150
Xanthornus 387
Xanthoura luxuosa 153
Xantus, Capt. J. 173
John 68, 246
Echini from 256
Xenopotrès 243
Xenopterus 231, 243
Xintete—Sceloporus sp 193
Xiphias gladius 573
Xiphiidæ 573
Xiphorhynchus flavigaster 156
Xochinauyague—Bothrops sp 190
Xylocopus 108
subgenus 119
Xylurgus 108
Xyrichthys 67
lineatus 590
martinicensis 590
types of **541**
modestus 590
psittacus 541, 590
rosipes 607
uniocellatus, types of **541**
venustus 590
vermiculatus 590
vitta 590
type of **541**

Y.

Yama-gara 375
gera—Picus canus jessoensis 106
Yankee—Cochlearius sp 171
Yarrow, Dr. H. C. 26
on Beaufort fishes 25
Yates, Dr. L. G. 460
Yellow Bird 611, 613
Yellow-legs, Large 628
Small 628
Yucatan, new Cyclorhis from **519**
Yungiceps 120
Yungipicus **120**
in Japan **104**
kizuki **120**, 121, 122
seebohmi 120, 121, 122, 123
measurements of **123**
Yunx 102
japonica 103

Z.

Zambullidor de pico delgado 179
grueso 180
Zanate—Quiscalus sp 152
Zapatero—Oligoplites saurus 38
Zapo—Bufo sp 198
Zapodidæ from Alaska 223
Zapornia **396**
Zapus hudsonius 223
Zarapico grande 178
Zenaida martinicana **624**
rubripes **624**
Zenaidura macroura 174
Zeus cauda bifurca **37**
crinitus ..... 57[illegible]

Page.
Zeus gallus 575
vomer **37**
Zoarces 542
anguillaris 29
Zonites (Conulus) chersina, var. egena **202**
fulvus 203
mortoni 203
Zonogobius 487
Zonotrichia melanotis 145
mystacalis 143
quinquestriata 143
Zopilote—Catharista sp 168
real 169
Zorzal cerquero—Pyrgisoma sp 148
chiquito de cabeza café 144

Page.
Zorzal chiquito de cya amarilla 145
de lomo café 145
rayado—Spizella sp 144
rosado—Melospiza sp 144
Zygonectes brachypterus 22
chrysotus 527
cingulatus **507, 463**
craticula 527
escambiæ, new species **462, 463**
manni 527
notatus 5, 8, 12, 14, 16, 17, 19, 21
notti 527
patruelis 22
zonifer 527